7479

GRO-A

PRIVATE AND CONFIDENTIAL

THE SKIPTON FUND

PO Box 50107 London SW1H 0YF Telephone: 02078081160 Email: apply@skiptonfund.org .www.skiptonfund.org

RECEIVED 0 1 DEC 2009
RECEIVED 0 4 NOV 2009

E

7479

Payment Authorised
Director APPEAL PANEL
Administrator
Date 12/03/10 Batch Number

GRO-A

GRO-A

4600 -£

PAID 2 3 MAR 2010

GRO-A 09/09/2009

GUIDANCE NOTES FOR APPLICATION FORM FOR FIRST STAGE EX GRATIA PAYMENT OF £25,000.

TO THE APPLICANT

Thank you for registering with the Skipton Fund. Please read these notes carefully before completing the form. Please also show these notes to the medical professional who you ask to complete the rest of the form after you have completed and signed Part 1.

HOW TO COMPLETE THE FORM

Page 2 of the application form must be completed by the person making the claim. In nearly all cases this will be you, the infected person; if such a claimant is unable to complete the first two pages of the form, they can be completed by a representative as long as this is made clear on the form.

If the application is for a payment that would have been made by somebody who has died, the form asks for information about the dead person.

All the rest of the form after page 2 must be completed by a medical professional, to whom you should give the form after you have completed and signed the first two pages. You should also give these guidance notes to that medical professional.

Generally this medical professional should be the principal clinician treating you; this will probably be a clinician treating Hepatitis C, but in the case of applicants with bleeding disorders it might be a haematologist.

If you cannot give this form to such a clinician to complete, you should take it to your General Practitioner, again with these guidance notes.

If you yourself have any records of how you were infected, please give them to the medical professional who will be completing the remainder of the form.

When the medical professional has completed the form, he or she should send it to the Skipton Fund where it will be processed. Provided that the information supplied confirms your eligibility for a payment, this will be made as soon as possible after the receipt of the form by the Skipton Fund.

If you have any difficulties in understanding what you should do with this application form, please telephone the Skipton Fund Helpline on (0207 808 1160). In case your call has to be recorded, please be ready to leave a telephone number to which it will be possible to return your call.

TO APPLY FOR SECOND STAGE EX GRATIA PAYMENT OF £25,000

The Skipton Fund will be processing applications for the first stage ex gratia payments as a matter of priority. You will be able to apply for the second stage ex gratia payment at any time in the future. If you believe that you are eligible for this payment, please ask the Skipton Fund for the relevant application form.

PRIVATE AND CONFIDENTIAL

PART 1A - TO BE COMPLETED BY OR ON BEHALF OF THE APPLICANT

Please complete the following in block capitals:

If you are completing this form on behalf of somebody who is unable to do it himself or herself, please supply the following information about that person. If you are claiming as the bereaved partner, parent or dependant of somebody who died after 29 August 2003, please supply the following information about the deceased.

Title (Mr/Ms/Mrs/other) MR Surname GRO-A

First name GRO-A Middle name/s GRO-A

Address GRO-A

GRO-A

SHROPSHIRE Post Code GRO-A

What is or was your relationship to this person?

If the infected person has died, please supply the SKIPTON FUND with a copy of the death certificate.

PART 1B - TO BE COMPLETED BY THE APPLICANT

DATA PROTECTION

Your personal information will only be used by the Skipton Fund on behalf of the Department of Health (England), acting for and on behalf of the Secretary of State for Health, the Scottish Ministers, the National Assembly for Wales and the Department of Health, Social Services and Public Safety (Northern Ireland) (together "the UK health administrations") to check your eligibility for a payment and to administer your application. In the event of a dispute as to your eligibility for payment, your information may be disclosed to the Department of Health (acting for and on behalf of the UK health administrations) Appeals Panel. Your information will otherwise be held in the strictest confidence and will not be shared with any other organisation.

By submitting this form to a medical professional, you consent to your medical details requested in Parts 2 being supplied to the Skipton Fund and the Department of Health (acting for and on behalf of the UK health administrations) for the purpose of administering your application. If your application is ultimately deemed to be ineligible for the ex gratia payment your information will be deleted. If you have any questions regarding the use of your information, please contact 0207 808 1160.

Do you consent to the medical details requested in Parts 2, 3 and 4 being supplied to the Skipton Fund?

*Delete as appropriate

YES/NO*

If you have any records of how you (or the deceased person) were infected, please give them to the medical professional who will be completing the remainder of the form.

By signing this form I declare that the information I have given on the form is correct and complete and that I have not previously claimed for the first stage ex-gratia payment of £20,000 from the Skipton Fund. I understand that if I knowlingly provide false information that I may be liable for prosecution and civil recovery proceedings. I consent to the disclosure of the information from this form to and by the Skipton Fund and the NHS Counter Fraud and Security Management Service for the purpose of verification of this claim and the investigation, prevention, detection and prosecution fund.

I wish to apply for a £20,000 ex gratia payment.

Signature of Applicant GRO-A **Date** 23 09 09

FOR SCOTTISH APPLICANTS ONLY:

By signing this form I confirm that this claim meets the further criteria for claims emanating from Scotland as set out in section 2 of the Guidance Notes entitled "THE SKIPTON FUND - What it is and how it works".

TO BE COMPLETED BY YOUR HOSPITAL DOCTOR OR GENERAL PRACTITIONER

NOTES TO THE MEDICAL PROFESSIONALS COMPLETING THIS FORM.

Thank you for your help with this application.

In most cases this form will concern a patient who is known to you who has been infected with Hepatitis C.

The purposes of this form are

- to confirm that the patient has been infected
- to confirm that the infection most probably arose through NHS treatment

If there are questions in this form relating to your patient that you cannot answer, please consult such other medical professionals as have treated your patient who would be able to provide such answers.

In a few cases this form will concern a patient who had been infected with Hepatitis C but who died after 29 August 2003. In such a case all the questions you are requested to answer refer to the deceased person.

In a few cases this form will concern a patient who has been indirectly infected (e.g. by accidental needle stick) by somebody who is (or was) himself or herself infected through NHS treatment. In such a case please answer only parts 2A, 2B, 4B and 5.

Please return this form, when completed, to the Skipton Fund in the freepost envelope supplied.

Skipton Fund Limited
Freepost NAT18555
London
SW1H OBR

PRIVATE AND CONFIDENTIAL

PART 1A - TO BE COMPLETED BY OR ON BEHALF OF THE APPLICANT

Please complete the following in block capitals:

If you are completing this form on behalf of somebody who is unable to do it himself or herself, please supply the following information about that person. If you are claiming as the bereaved partner, parent or dependant of somebody who died after 29 August 2003, please supply the following information about the deceased.

Title (Mr/Ms/Mrs/other) MR Surname GRO-A

First name GRO-A Middle name/s GRO-A

Address GRO-A

GRO-A

SHROPSHIRE Post Code GRO-A

What is or was your relationship to this person?

If the infected person has died, please supply the SKIPTON FUND with a copy of the death certificate.

PART 1B - TO BE COMPLETED BY THE APPLICANT

DATA PROTECTION

Your personal information will only be used by the Skipton Fund on behalf of the Department of Health (England), acting for and on behalf of the Secretary of State for Health, the Scottish Ministers, the National Assembly for Wales and the Department of Health, Social Services and Public Safety (Northern Ireland) (together "the UK health administrations") to check your eligibility for a payment and to administer your application. In the event of a dispute as to your eligibility for payment, your information may be disclosed to the Department of Health (acting for and on behalf of the UK health administrations) Appeals Panel. Your information will otherwise be held in the strictest confidence and will not be shared with any other organisation.

By submitting this form to a medical professional, you consent to your medical details requested in Parts 2 being supplied to the Skipton Fund and the Department of Health (acting for and on behalf of the UK health administrations) for the purpose of administering your application. If your application is ultimately deemed to be ineligible for the ex gratia payment your information will be deleted. If you have any questions regarding the use of your information, please contact 0207 808 1160.

Do you consent to the medical details requested in Parts 2, 3 and 4 being supplied to the Skipton Fund? *Delete as appropriate YES/NO*

If you have any records of how you (or the deceased person) were infected, please give them to the medical professional who will be completing the remainder of the form.

By signing this form I declare that the information I have given on the form is correct and complete and that I have not previously claimed for the first stage ex-gratia payment of £20,000 from the Skipton Fund. I understand that if I knowlingly provide false information that I may be liable for prosecution and civil recovery proceedings. I consent to the disclosure of the information from this form to and by the Skipton Fund and the NHS Counter Fraud and Security Management Service for the purpose of verification of this claim and the investigation, prevention, detection and prosecution fund.

I wish to apply for a £20,000 ex gratia payment.

Signature of Applicant GRO-A **Date** 23 09 0[illegible]

FOR SCOTTISH APPLICANTS ONLY:

By signing this form I confirm that this claim meets the further criteria for claims emanating from Scotland as set out in section 2 of the Guidance Notes entitled "THE SKIPTON FUND - What it is and how it works".

PART 2A - TO CONFIRM THE APPLICANT'S ELIGIBILITY FOR PAYMENT

Has an HCV antibody test ever been positive? YES/NO*

Is the applicant currently PCR positive? YES/NO*

If the applicant is currently PCR negative, is this as a result of past or ongoing interferon-based treatment? YES/NO*

If the applicant is PCR negative is there radiological or pathological evidence that they were chronically infected after the acute phase (ie the first six months) of the illness had passed? (Relevant radiological or pathological evidence would include chronic-phase raised liver-function tests, previous consideration for treatment, liver histology or radiography, other symptoms of chronic Hepatitis C.) YES/NO*

PLEASE PROVIDE A COPY OF MEDICAL RECORDS CONFIRMING THE ABOVE ANSWERS

PART 2B - TO CONFIRM WHETHER INFECTION AROSE INDIRECTLY

In your opinion, is it probable the applicant was infected as a result of transmission of the virus from another person who had himself/herself been infected through treatment with blood, blood products or tissue? YES/NO*

If YES did transmission occur as a consequence of

- sexual intercourse? YES/NO*
- accidental needle stick? YES/NO*
- mother-to-baby transmission? YES/NO*
- other (please specify)?

Please provide details of which genotype the applicant is infected with

If any of the answers in part 2B is 'YES', please ignore the rest of parts 2, 3 & 4A and go to part 4B.

PART 2C - TO CONFIRM THAT A DECEASED PERSON WOULD HAVE BEEN ELIGIBLE FOR PAYMENT

Did the deceased person ever test positive for HCV antibodies? YES/NO*

Was the deceased person PCR positive at the time of death? YES/NO*

If either of these answers is 'yes', please complete the remainder of this form in respect of the deceased person.

If at the time of death the applicant was PCR negative was this as a result of interferon based treatment? YES/NO*

If the infected person has or had haemophilia or any other inherited or acquired bleeding disorder, please go to Part 3, but ignore part 4.

*Delete as appropriate

PART 3 - TO BE COMPLETED ONLY IN RESPECT OF INFECTED PEOPLE, WITH HAEMOPHILIA OR OTHER INHERITED OR ACQUIRED BLEEDING DISORDERS

i) **Please confirm that the infected person has or is a carrier of an inherited or acquired bleeding disorder** YES/NO*
(such as haemophilia or von Willebrand's disorder)

ii) **Were any of the following used to treat the infected person before 1 September 1991?**
(please tick where appropriate)

- Factor VIII concentrate ☐
- Factor IX concentrate ☐
- Cryoprecipitate ☐
- FEIBA ☐
- Plasma/FFP ☐
- Whole blood or components ☐ (components include platelets, red cells, neutrofils etc)
  - Did treatment include repeated doses? YES/NO*
- Other coagulation factor concentrate ☐
  - If so which?

iii) **In which NHS hospital(s) did the infected person receive the products listed before 1 September 1991?**

iv) **If none of the products listed above was used to treat the infected person before 1 September 1991, do you believe that the infected person's Hepatitis C infection was caused through NHS treatment received before that date?** YES/NO*

PLEASE PROVIDE A COPY OF MEDICAL RECORDS CONFIRMING THE ABOVE ANSWERS

If part 3 has been completed ignore part ~~4~~ 4A and go straight to part ~~5~~ 4B.

*Delete as appropriate

PART 4A - TO CONFIRM THAT INFECTION MOST PROBABLY AROSE THROUGH NHS TREATMENT . (NOT TO BE COMPLETED IN RESPECT OF PEOPLE WITH HAEMOPHILIA OR OTHER INHERITED OR ACQUIRED BLEEDING DISORDERS)

i) When where and how is it believed that infection occurred?

When? (date) ? ? 06 9X74

Where? (in what NHS hospital or other facility) North Lonsdale Barrow-in-Furness

How? (during surgical procedures, A&E treatment, etc) Please specify.

Following removal of Angio fibroma a benign tumour around ~~Aug 1991~~ June 1974 repeated 1975/7 GRO-C

GRO-C

ii) Do any records exist of this possible occasion of infection?
If YES, please specify and enclose a copy of the relevant records

No

iii) If the date of infection cannot be proved, do you believe infection occurred before 1 September 1991? YES/NO*

iv) Were any of the following used to treat the applicant before 1 September 1991?
(please tick where appropriate)

Intravenous immunoglobulin	☐	Plasma/FFP	☐
Albumin	☐	DEFIX	☐
Bone marrow	☐	Whole blood or components	☑

(components include platelets, red cells, neutrofils etc)

If so, for what purpose, and did the treatment involve repeated doses?

There is the possibility of repeat transfusions

v) Does any evidence exist of any other possible source of infection
(e.g. treatment with other blood products or tissue, etc)? YES/NO*
If YES, please specify

*Delete as appropriate

PART 4B - OTHER POSSIBLE SOURCES OF INFECTION [redacted]

Based on evidence or your experience, has the infected person been treated for intravenous drug use? YES/NO*

Has the infected person ever received hospital treatment outside the UK? YES/NO*

If YES, what treatment and where?

Is there any other evidence that might affect the eligibility of the infected person for payment? YES/NO*

If YES, please specify?

In your view is it probable that the infected person's HCV infection was acquired in consequence of NHS treatment received before 1 September 1991? YES/NO*

*Delete as appropriate

PART 5 - TO CONFIRM THE AUTHORITY OF RESPONDENT(S)

How long have you known the person in respect of whom you have completed this form?

years 3 months

Name of Clinician D. N. MIKE

Department [illegible]E DICINE

Hospital [illegible] Royal Hospith-

Address [illegible] CASTLE

[illegible]-FORD

Post Code [illegible] I 6TF

Signature of Clinician

GRO-C

Hospital Stamp

Clinician's GMC number

GRO-C

How long have you known the person in respect of whom you have completed this form?

years months

Name of Clinician

Department

Hospital

Address

Post Code

Signature of Clinician

Hospital Stamp

Clinician's GMC number

How long have you known the person in respect of whom you have completed this form?

years months

Name of Clinician

Department

Hospital

Address

Post Code

Signature of Clinician

Hospital Stamp

Clinician's GMC number

How long have you known the person in respect of whom you have completed this form?

years months

Name of GP (if relevant)

Surgery

Address

Post Code

Signature of GP

Surgery Stamp & GMC number

By signing this form I confirm that the information contained within parts 2 – 5 of the form is true to the best of my knowledge and belief and that if I knowlingly authorise false information this may result in disciplinary action and I may be liable to prosecution. I consent to the disclosure of information from this form to and by the Skipton Fund and the NHS Counter Fraud and Security Management Service for the purpose of verification of this claim and for the investigation, prevention, detection and prosecution of fraud.

Please return the completed form to the Skipton Fund in the freepost envelope supplied

Thank you very much for your help in completing this form

Skipton Fund

PO Box 50107, London SW1H 0YF

Tel: 020 7808 1160 e-mail: apply@skiptonfund.org www.skiptonfund.org

STAGE 1

Name and address:

GRO-A

Shropshire

GRO-A

Ref No: 7479

I hereby give consent for the Skipton Fund to transfer the data it currently holds on me to the NHS Business Services Authority, the new English scheme administrator, for the purposes of continuing financial support from 1 November 2017 onwards.

Signed:

GRO-A

Date:

11 September 2017

Skipton Fund

PO Box 50107, London SW1H 0YF

Tel: 020 7808 1160 e-mail: apply@skiptonfund.org www.skiptonfund.org

STAGE 1

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GRO-A

Shropshire

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Signed:

GRO-A

Date:

11 September 2017

Skipton Fund

PO Box 50107, London SW1H 0YF
Tel: 020 7808 1160 e-mail: apply@skiptonfund.org www.skiptonfund.org

RECEIVED 14 MAR 2017 RECEIVED

GRO-A

Shropshire
GRO-A

Creditor ID: 7479

Please provide an email address in block capitals to which we will send the monthly or quarterly remittance advice. If you do not provide an email address we will send the remittance advice by post:

GRO-A @ GRO-A

Please give your preference of how you would like to receive the regular annual payment by ticking the appropriate box below, the payment frequency cannot be changed during the course of the year. **If you do not tick one of the boxes your payment will be made monthly.**

MONTHLY (UK accounts only) QUARTERLY

By signing this form I confirm that I was the recipient of the Skipton Fund Stage One payment of £20,000. I understand that the regular annual payment is only payable whilst I am alive and that if I have registered a joint account with the Skipton Fund I have made the other party aware that they must contact the Skipton Fund in the event of my death. It is my responsibility to inform the Skipton Fund of any changes to my contact details or banking details.

Signature GRO-A ..... **Date** 13/03/17

Please note that if we receive your form unsigned it will need to be returned for signature and may result in a delay to your payment.

Company Limited by Guarantee. Registered Company No.: 5084964
Registered Address: Bay Lodge, 36 Harefield Road, Uxbridge, Middlesex, UB8 1PH

Skipton Fund

PO Box 50107, London SW1H 0YF
Tel: 020 7808 1160 e-mail: apply@skiptonfund.org www.skiptonfund.org

Skipton Fund Stage 1 annual payment of £3,500 2016/17 in England
BANK DETAILS FORM

RECEIVED 21 NOV 2016

Full name: GRO-A Creditor ID (from letter): 7479

Please provide the details of the bank account to which you wish the regular payment to be made:

Name(s) on Bank account: GRO-A

Name of Bank: LLOYDS BANK

Sort Code: GRO-A

Bank account number: GRO-A

If the account is with a building society the roll number will also be required

Building society roll number:

By signing this form I confirm that I was a recipient of the Skipton Fund Stage 1 payment of £20,000. I understand that the regular annual payment is only payable whilst I am alive and that if I have provided a joint account above I have made the other party aware that they must contact the Skipton Fund in the event of my death. It is my responsibility to inform the Skipton Fund of any changes to my contact details or banking information. I also confirm that I am applying to the English scheme of support and not appealing the decision of the country in which my infection occurred.

Signed: GRO-A Date: 16/11/16

Please ensure that when returning this form you also enclose a **form of ID** and a **utility bill or bank statement** showing your name and address. **Please send copies and not original documents.**

Please return the form in the freepost envelope provided to:
Skipton Fund Ltd, Freepost NAT18555, London, SW1H 0BR

You will be sent confirmation that we have received this form and the supporting ID within two weeks of receipt. Due to the number of forms we expect to receive, this may take a number of days to process. Please do not contact us to check if we have received your documentation unless you have not received confirmation within two weeks of sending the form.

You will be sent a remittance advice to inform you when the payment has been made.

AVANTIGAS

ICEB GBS No 8289

Invoice Number	B 1000939899

SALES INVOICE

Avanti Gas Ltd
Po Box 1100
CHESTERFIELD
S44 5YQ
GBR

T +44 (0) 808 208 0000
F +44 (0) 870 830 1101

RECEIVED 21 NOV 2016

GRO-A

Date/Tax Point : 08/09/2016

Acc. no. 008965111

Blanket Order No :

Description	Unit	Quantity	Unit Price	Amount	VAT Code
GRO-A					
GRO-A					
FCT					
Grouped Orders					
Delivery number : 227599/0001205356 Delivery date : 07/09/2016					
Propane	L	871	0.350000	304.85	F

VAT Analysis

Code	Rate	Amount	Tax Amount
F	5.00	304.85	15.24

Total excl. of VAT	£	304.85
VAT		15.24
Total	**£**	**320.09**

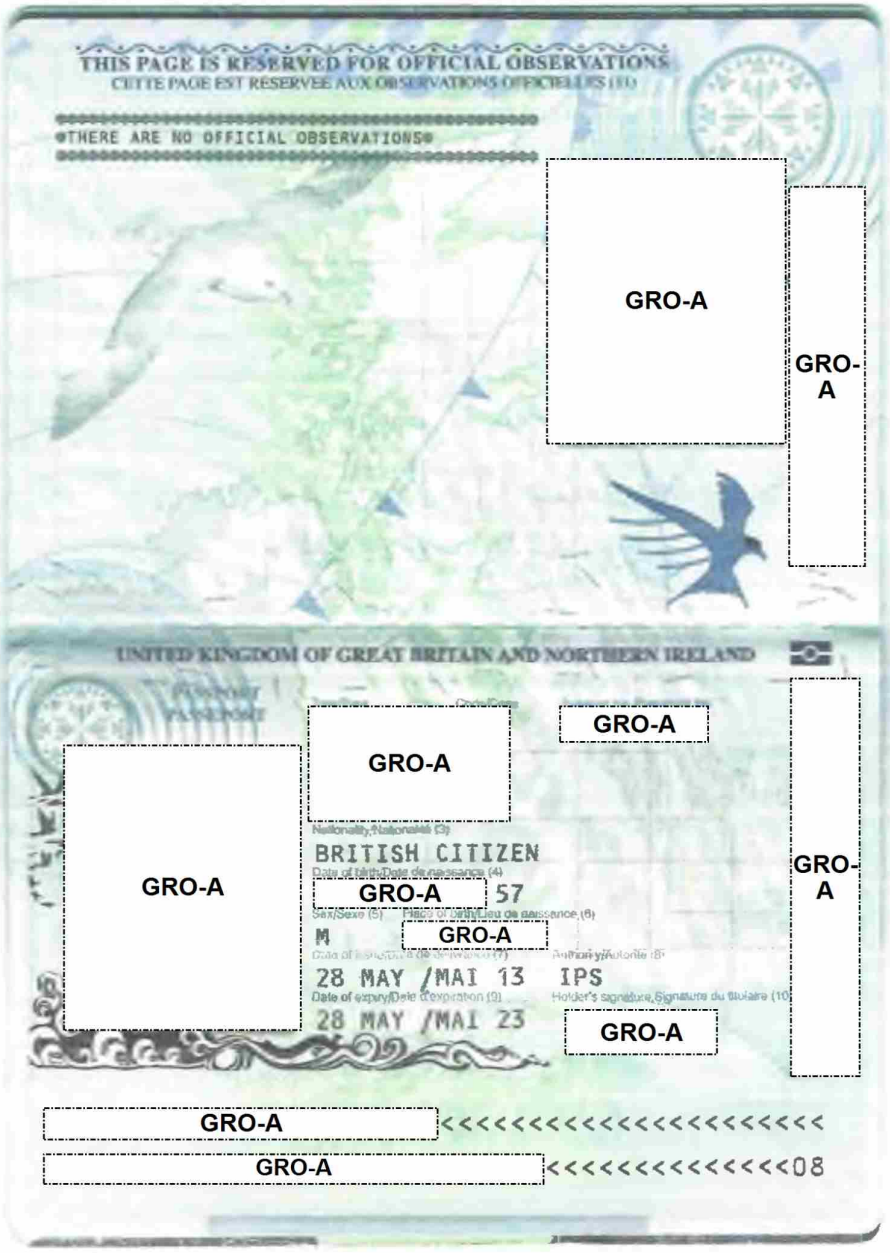
Climate Change Levy Exemption	0%

Customer Information :
For Information Only if paying by Direct Debit. To contact Avanti Gas call 0808 208 0000 for Enquiries or Orders
Emergency Number only 0870 753 9999. There are other suppliers of Domestic LPG. To find out more
contact the Liquified Petroleum Gas Association at Website www.ukipg.org or call 01926 513753
Direct Debit Customers - Invoice for Information Only

Company Name - Avanti Gas LTD
Sort Code - 20-00-00 Account Number - 13876012
IBAN Number - GB49 BARC 2000 0013 8760 12
SWIFT - BARCGB22

B 1000939899
008965111

IMPORTANT INFORMATION OVERLEAF



Skipton Fund

PO Box 50107, London SW1H 0YF
Tel: 020 7808 1160 e-mail: apply@skiptonfund.org www.skiptonfund.org

I acknowledge receipt of the £20,000 stage one Skipton Fund ex gratia payment.

Creditor ID 7475

Date 25/03/10 Signed GRO-A GRO-A

Please return this slip using the freepost envelope provided.

With Compliments

Company Limited by Guarantee. Registered Company No.: 5084964 Registered Address: Bay Lodge, 36 Harefield Road, Uxbridge, Middlesex, UB8 1PH

Nick Fish

From: GRO-A
Sent: 15 March 2010 12:24
To: apply@skiptonfund.org
Subject: GRO-A Application 7479

Mr Fish

Thank you for your letter confirming my successful appeal.

I would confirm my bank details as follows:

- Bank
  - Lloyds TSB
- Sort Code
  - GRO-A
- Account No:
  - GRO-A
- Account Name:
  - GRO-A

I would be grateful if you could acknowledge safe receipt of this information.

Thank you for your help

...
Regards

GRO-A

Home:
Office:
Mobile GRO-A

GRO-A

Shropshire
GRO-A

12th March 2010

Dear Mr GRO-A

Re: Successful Skipton Fund Appeal (7479)

Please find enclosed a letter from Professor Mark Mildred, the Chair of the Appeal Panel.

As you can see from the letter, your application has now been approved and is ready for payment.

Please confirm in writing or by email the following details of the account to which you would like your payment to be made.

1. The name of your Bank/Building Society
2. The account sort code
3. The 8-digit account number
4. The name in which this account is held
5. The Building Society Roll Number (if applicable)

Once these details have been confirmed we will proceed with the application process.

Yours sincerely

Nicholas Fish
Scheme Administrator

Skipton Fund Appeal Panel

PO Box 50107, London SW1H 0YF
Tel: 020 7808 1160 e-mail: appeal@skiptonfund.org www.skiptonfund.org

GRO-A

Shropshire
GRO-A

10 March 2010

Dear Mr GRO-A

The Skipton Fund Appeals Panel was established on 1 September 2006 to determine appeals by those refused *ex gratia* payments out of the Fund. It is independent of the Department of Health and of the Skipton Fund itself. Its membership comprises an expert in each of the fields of liver disease, blood services and general medical practice together with a lay member and a legally qualified Chair.

The criteria for payments are as follows: for a Stage One payment of £20,000 the person concerned must have been infected with Hepatitis C virus either directly through treatment with NHS Blood or blood products before 1 September 1991 or indirectly by contact with such a person. For a Stage Two payment the person concerned must have gone on to develop cirrhosis or cancer of the liver.

The Appeal Panel has no power to hold oral hearings but instead conducts a thorough review of all upon which the Fund made the decision to refuse payment. The Panel does, however, have the power to request additional evidence where appropriate. The Panel cannot vary the terms of entitlement to payment established by the terms of the Skipton Fund itself, for example by allowing payments for infection from treatment given after 1 September 1991 or by allowing payments where the infection had cleared spontaneously within six months or by reference to the special rules for those infected by Factor VIII or Factor IX blood products.

In order to succeed on an appeal the appellant must satisfy the Panel that it is probable, that is more likely than not, that the infection with Hepatitis C was indeed caused either directly through treatment with NHS blood or blood products before 1 September 1991 or indirectly by contact with a person who was so infected. In order to be satisfied that this is the case the Panel will pay particular attention to the treatment records of the person concerned.

Your appeal was considered by the Panel at its meeting yesterday. The Panel reviewed the entire file of papers held by the Skipton Fund in connection with your appeal and has also reviewed the additional information supplied for the purpose of the appeal.

As a result of these considerations we were satisfied that it is more likely than not that your infection resulted from qualifying NHS treatment and accordingly allow your appeal.

If you consider that we have made a mistake of law or in the manner in which we have dealt with your appeal, you should take legal advice as soon as possible about the possibility of asking the High Court to conduct a Judicial Review of our decision. The High Court will not, however, generally review the merits of the appeal as opposed to the process by which it was conducted.

GRO-C

.....

Mark Mildred
Chair of Appeal Panel

Nick Fish

From: Skipton Fund Website [apply@skiptonfund.org]
Sent: 08 September 2009 19:59
To: apply@skiptonfund.org
Subject: Online registration system - new registration

--------- Registration Form ... Generated from website: www.skiptonfund.org ---------

-- Title: Mr

-- Forenames: GRO-A

-- Last Name: GRO-A

-- Address: GRO-A

GRO-A

-- Post Code: GRO-A

-- Daytime Telephone: GRO-A

-- OK to leave message?: Yes

-- Email address: GRO-A

-- National Insurance #: GRO-A

-- NHS #: GRO-A

-- Date of Birth: GRO-A 1957

-- Name of Haemophilia Centre: Not Entered

-- Name of Bank/Building Society: Lloyds TSB

-- Account Name: GRO-A

-- Sort Code: GRO-A

-- Account Number: GRO-A

-- Building Society Roll Number: Not Entered

3 GRO-A

Dob GRO-A 1957

Currently registered with the Shropshire Health Authority. **For any further information you should contact the Patient Data manager on:**

Tel: GRO-A

GRO-A

Shropshire GRO-A

18th January 2010

Dear Mr GRO-A

Re: Skipton Fund Appeal for Mr GRO-A (7479)

Please accept this letter as confirmation that you wish to lodge an appeal against the fund in respect to your application.

As you do not accept our decision on the outcome of your application, your case will be referred to the Independent Appeal Panel, which is chaired by an experienced lawyer and consists of a haematologist, a hepatologist, a general practitioner and a lay person. The Appeal Panel was established by the Department of Health and has been considering cases since 3rd October 2006.

Cases are dealt with in writing and it is not an option for applicants to attend the meetings in person. The cases are reviewed in the order that the appeal request was received. Copies of all the information we hold on file regarding each case will be distributed to the panel for their consideration in advance and then a decision will be reached at the next meeting. If any further information is needed the panel will arrange for a written request to be sent to the relevant person.

The date of the next meeting of the Appeal Panel has been set for Tuesday 9th March. Please submit any further information that you may have to arrive before 23rd February to ensure that the panel members have time to fully consider it before their meeting. This should be sent to **Skipton Fund Appeals** at the above address. You will be written to within 5 working days of the meeting date and informed of the outcome of your appeal; if further information is needed to enable the panel members to reach a decision then a request will be sent instead.

Finally, please find enclosed a copy of the press release relating to the appointment of the Appeal Panel members (Please note that Dr John Dracass has been replaced by Dr Norman Gourlay. The other four panel members have been assessed and re-appointed until 31st August 2012. If you require a copy of the press release relating to the appointment of Dr Gourlay then please contact the Skipton Fund office and one will be sent as and when it is received from the Department of Health).

Yours sincerely

Nicholas Fish
Scheme Administrator

GRO-A

Shropshire
GRO-A

Home Office: GRO-A

14 January 2010
Ref: 56.Skipton GRO-A

RECEIVED 18 JAN 2010

Skipton Fund Limited
Freepost NAT18555
London
SW1h 0BR

For the attention of Nicholas Fish

Dear Mr Fish

GRO-A **Application No 7479**

I refer to your letter dated 11 December 2009 declining my application for the 'Ex Gratia' payment due to lack of information confirming that I was treated with NHS blood or blood products prior to September 1991.

I would now like this decision to be reviewed by the independent appeals panel and would be grateful if you could arrange this for me on my behalf.

In support of my appeal I enclose the following information:

Information as previously submitted:

- The Skipton Fund Application Form duly completed my me and the Medical Team at the Princess Royal Hospital, Telford, overseeing my Hepatitis C treatment.
- A letter from my Consultant and Hepatitis C Screening Nurse confirming their investigations on my behalf, and that in their opinion there are no other risk factors evident which would have lead to me being infected by the Hepatitis C virus.
- A copy of a letter from University Hospitals of Morecambe Bay, which confirms that the records of my operations carried out at North Lonsdale Hospital have been destroyed.
- A copy of a letter from my current GP, which confirms that from the records available to him and to the best of his knowledge I have not had any other surgical procedures since the above dates.
- Copies of the following correspondence held by my GP.

Date	From	To
3 June 1974	Mr J. Potter Consultant ENT Surgeon	Dr H McGranthin
28 October 1974	Mr J. Potter Consultant ENT Surgeon	Dr H McGranthin
November 1974	Mr J. Potter Consultant ENT Surgeon	Dr H McGranthin

← + letter dated 29/4/74

18 December 1975	M.B. Duthie Consultant Radiotherapist	Mr J. Potter Consultant ENT Surgeon
15 January 1976	R.S. Pointon Consultant Radiotherapist	Mr J. Potter Consultant ENT Surgeon

Additional information supplied in support of my appeal:

- A copy of my medical records from the Christie Hospital Manchester, together with a copy of the following correspondence supplied by them. (Please note that I am advised they have no records going back beyond 1975).

Date	From	To
29 September 1975	M.B. Duthie Consultant Radiotherapist	Mr J. Potter Consultant ENT Surgeon
15 October 1975	R.S. Pointon Consultant Radiotherapist	Mr J. Potter Consultant ENT Surgeon
18 December 1975	M.B. Duthie Consultant Radiotherapist	Mr J. Potter Consultant ENT Surgeon
15 January 1976	R.S. Pointon Consultant Radiotherapist	Mr J. Potter Consultant ENT Surgeon

- A medical opinion provided by Mr Derek Skinner F.R.C.S. (Ed.), F.R.C.S.(Eng.). Consultant ENT Surgeon, as to the high probability for the need of blood when surgically removing a nasal pharyngeal angiofibroma.

- A copy of a letter from my mother and father, GRO-A confirming that I had a blood transfusion during my operations.

- A copy of a letter from my brother, GRO-A confirming that I had a blood transfusion during my operations.

- A copy of a letter from my brother, GRO-A confirming that I had a blood transfusion during my operations.

- A copy of the following articles I have managed to obtain from research on the internet on which I have highlighted the references to the blood loss and the need for blood transfusions during surgery for the removal of this type of tumour:

  Article Title
  - Nasopharyngeal Angiofibroma with Cavernous Sinus Involvement.
  - Therapeutic Embolization of Juvenile Angiofibroma.
  - Medline Plus - Juvenile Angiofibroma.
  - UPMC- Minimally Invasive Brain Surgery – Conditions and Treatment Angiofibroma (Juvenile Nasopharyngeal Angiofibroma) Overview.
  - BMC Baylor College of Medicine - Juvenile Nasopharyngeal Angiofibroma by James O. Fordice. September 1993.
  - Aaroya.com – Surgery of Nasopharyngeal Angiofibroma

The reason I have been given for the my application being declined is that the information and records that I have supplied to date do not confirm that I received any NHS blood or blood products prior to September 1991.

From my telephone conversation with you, I understand that you are happy that the evidence I have provided to date confirms I have acquired the Hepatitis C virus and that I also underwent surgical procedures in 1974 and 1975. What I need now to be able to demonstrate is that it was **probable** that I received blood or blood products during these operations and that it was not just a possibility.

I would state at the outset that the blood I received during the operations I underwent in 1974 and 1975 for the removal of a 'Nasal Pharyngeal Angiofibroma' are the only occasions in my life to date, when I could have been infected by the Hepatitis C virus. By way of confirmation of this the letter from my Consultant and Hepatitis C Screening Nurse states that they cannot see any other risk factors which could have lead to my infection, and the letter from my GP also confirms that they have no records of any other operations I may have undergone since this date. I would also like to confirm that I have never been a drug user of any sort, intravenous or otherwise.

If necessary I am prepared to give a 'Statutory Undertaking' to the effect that I was given NHS blood or blood products during these operations and that this is the only time that I could have been infected with the Hepatitis C virus.

In April 1974 I was taken to casualty at North Lonsdale Hospital, Barrow –in- Furness with an epistaxis, which was originally believed to be caused by a fibroma of not any great significance.

Following a severe reoccurrence of the epistaxis I was readmitted to North Lonsdale Hospital where the Consultant E.N.T surgeon, Mr J. Potter F.R.C.S, determined that I had a nasal pharyngeal angiofibroma. This was subsequently surgically removed. I received NHS blood or blood products both prior to and following the surgery. Following the surgery I was referred to the Christie Hospital and Radium Institute, Manchester, as my consultant had asked them to look at the possibility of radiating the remainder of the tumour that was left within my cheek. After a lot of radiographic investigation work this was not carried out.

In the October / November of 1975 I again experienced a severe reoccurrence of the epistaxis and following a consultation with a ENT Consultant in Birmingham (where I was at college) it was confirmed that the tumour had reoccurred (as is common with this type of tumour). I was again admitted to North Lonsdale Hospital, where I was immediately put on a blood drip to counter the blood loss I had been experiencing from the expistaxis. Mr J Potter again surgically removed the tumour following which I continued to receive NHS blood or blood products. Following the surgery I was again referred to the Christie Hospital and Radium Institute, Manchester, for possible radiotherapy. But in the event this again was not considered a wise cause of action to follow.

The nature of this rare tumour is that it is composed mainly of blood vessels and that it bleeds severely on biopsy or manipulation. I understand from Mr. Derek Skinnner F.R.C.S. (Ed.), F.R.C.S.(Eng.). Consultant ENT Surgeon, and the articles I have researched on the internet that the current method of dealing with this type of tumour is to embolize it prior to the surgical removal to reduce blood loss. However even this procedure cannot guarantee that a blood transfusion will not be required.

As the operations I underwent in 1974 and 1975 were prior to the use of emobolization techniques it is highly probable that that I would have needed blood transfusions to counter the blood loss during the surgery (I have a recollection of being told that I had 8 units of blood during one of the operations), this is confirmed by Mr. Skinnner in his letter and the attached articles. Of particular interest is the article entitled 'Therapeutic Embolization of Juvenile Angiofibroma' dated October 1979, which make reference to the average blood loss being reduced form 2400ml in nonembolized patients to 800ml in embolized patients. I would also refer you to the article 'BMC Baylor College of Medicine - Juvenile Nasopharyngeal Angiofibroma by James O. Fordice. September 1993.' In this article 16 patients out of 20 under went surgery for the removal of this type of tumour. All of them had the tumour embolized prior to surgery however 6 of them still required blood transfusions.

I believe that the information I have now supplied proves beyond doubt that during the operations I underwent in 1974 and 1975 for the removal of a Nasal Pharyngeal Angiofibroma I would have received the NHS blood or blood products, which has now lead to my Hepatitis C infection, and that reference to your own medical experts will confirm that this is the case.

If you have any further queries please do not hesitate to contact me

Yours sincerely;

GRO-A

The Shrewsbury and Telford Hospital NHS

NHS Trust

Dr N Mike
Consultant Physician

Princess Royal Hospital
Apley Castle
Telford
Shropshire
TF1 6TF

Tel: 01952 641222

Nicholas Fish
Skipton Fund
PO Box 5015107
London
SW1 H0YS

20 November, 2009

Dear Mr Fish

Re: GRO-A
Shropshire
GRO-A

Unit No: GRO-A
NHS Number
DOB:
Reference
Appointment : 19/11/09

We have been unable to track down any information regarding this gentleman's blood transfusions in the 1970's as the hospital has been closed and it appears all records were destroyed. This gentleman has no other risk factors at all and I would be grateful for your action on his claim now the appropriate amendments have been made to the Skipton fund form.

Thanking you in anticipation.

Yours sincerely

GRO-C GRO-C

Sister S Taylor
Hepatitis C Screening Nurse

CHRISTIE HOSPITAL and HOLT RADIUM INSTITUTE

Hospital No.	Surname	Forenames	M.F.	M.S.W.O.	Date of Registration
GRO-A	GRO-A	GRO-A	M	S	26.9.75

N.H.S. No.	Date of Birth	Age	Maiden Name	Place of Birth	Religion
	GRO-A.57	18		Liverpool	c of e

Address: GRO-A

Telephone No.: GRO-A

Occupation	Husband's Occupation	Father's Occupation
Student		Draughtsman

G.P. Dr. R.H. MacGranthin, 11 Duke Street, Askam

Responsible Relatives

1. Parents, S/A

2.

Referred by (Consultant)	(Hospital)	Ref. No.
Mr. J. Potter	North Lonsdale Hospital	39934A

Primary Site R. or L. Type New Healed Residual Recurrent Metastatic

DIAGNOSIS Nasal Pharynx. Nasal pharyngeal fibroma. Benign Stage Misc. Code

Amended by Date amended

Date of first symptom: First sign or symptom: Blood Group

Date of first visit to G.P. Date of first visit to Hospital

History

NBD/PATIENT HAS JUST STARTED COLLEGE IN BIRMINGHAM AND HAS BEGUN TO STUDY ARCHITECTURE. First seen by Mr. Potter 29.4.74 as emergency admission because of epistaxes for three weeks. Found to have had E.U.A. three polypoid masses in the right choana. Biopsy taken path fibroma. After EUA 24.10.74 showed a big lobulated tumour arising from the same site on 18.11.74. Pedicle incised and irregular smooth tumour removed from the upper edge of the right perpendicular plate of the palatine . Path below. Kept on F.U. and recently has had further epistaxes. Facial swelling remains. Mr. Potter now refers for XRT in case patient gets severe haemorrhage when he is away from home.

Examination

NBD/G.C. excellent. No tumour visible on oral examination. Right airway blocked. Swelling of right cheek as diagrammed. Tiny insignificant left supraclav node.

Investigations

External X-Ray

29.4.74/There are mucosal changes present in the left antrum, the other sinuses appear normal.

External Path.

18/11/74/Simple haemangioma (or angiofibroma) or vascular fibroma - Rewoll's name for it). It shows polymorph infiltration superficially and this particular section is devoid of mucous membrane

Proposed Treatment

NBD/Although should be undergoing spontaneous regression soon, would seem reasonable in view of recent haemorrhage to give XRT as a palliative procedure. This to be done as soon as possible in view of patients studies but he is at a residential course next week. Will require appropriate radiographs on admission to Christie.

Office Instruction Clinical Trial Responsible Consultant

NBD/IP WL RTC for XRT in charge Dr. Pointon on or as soon after 6/10/75 as possible.

OAK HOUSE.

UHSM 433A

Cons. Code

SKIP0000088_0029

BHJ Hosp Case Reports

NASOPHARYNGEAL ANGIOFIBROMA WITH CAVERNOUS SINUS INVOLVEMENT

An Unusual Presentation

Dinaz K Irani*, Makarand V Damle**,Bachi T Hathiram***, N L Hiranadani****
*Lecturer; **Senior Resident; ***Associate Professor; ****Hon. Professor, Department of Otorhinolaryngology, TN Medical College and BYL Nair Ch. Hospital, Mumbai 400 008.

INTRODUCTION

Juvenile nasopharyngeal angiofibroma (JNA) is an uncommon benign vascular tumour occurring almost exclusively in pre-pubescent or pubescent males. The triad of epistaxis, nasal obstruction and the presence of a nasopharyngeal mass strongly indicates an angiofibroma, especially when seen in an adolescent male. It accounts for less than 0.05% of head and neck tumours (Waldman et al, 1981). Its incidence has been stated to be as low as one in 50,000 otolaryngological new patients.[1] Intracranial extension has been observed in 20-30% patients with JNA.[2,3]

It is a benign tumour and is locally aggressive eroding adjacent bone and growing through natural foramina and fissures thus gaining an easy access into the cranium and the infratemporal region. The intracranial extension is either through erosion of the sphenoid sinus through the sella medial to the carotid artery and lateral to the pituitary gland or via erosion of the greater wing of sphenoid through the middle cranial fossa anterior to the foramen lacerum and lateral to the cavernous sinus and carotid artery.

In this paper we report our experience of an unusual presentation of a huge JNA with intracranial extension into the middle cranial fossa, which encroached the cavernous sinus. We treated it surgically by the conventional combined lateral rhinotomy and transpalatal approaches. The entire tumour including the intracranial extent was removed without opening the cranium.

CASE REPORT

A 17 year old boy was referred to us with chief complaints of right-sided nasal obstruction, repeated episodes of epistaxis and a nasal twang since a period of 1 year. The patient was alright 1 year back when he started experiencing a right-sided nasal obstruction which was gradually increasing. He also complained of repeated episodes of epistaxis, which increased to 10-15 ml of fresh blood daily. The epistaxis was controlled by the patient by lying in the supine position. There was no headache, vomiting, diplopia or any other symptoms suggestive of raised intracranial tension or involvement of the cavernous sinus. The patient occasionally complained of bleeding from the mouth.

On general examination, the patient was anaemic. There was widening of the bridge of the nose. Anterior rhinoscopy showed purulent discharge in the right nasal cavity and a huge reddish lobulated mass seen extending into the oropharynx behind the palate for about 2 cm.

Haematological investigations of the patient were as follows

Haemoglobin 6 gm%, PCV 42 gm%, MVC 65 fl., MCH 25 pg., MCHC 25%, BUN 15 mg%, Serum creatinine 0.5 mg%, Serum Na 133 mEq/L, Serum K 3.5 mEq/L, ESR 9 mm at the end of the Serum Ca 9 mg%.

TABLE 1: **Embolization Procedures and Results**

Method / Case No.	Tumor Supply: Internal Maxillary Artery	Tumor Supply: Ascending Pharyngeal Artery	Tumor Supply: Internal Carotid Artery	Vessel Embolized (no. emboli)	Estimated Blood Loss at Surgery After Embolization
Silastic [3]:					
1.	**Bilateral**	...	Left	Left internal maxillary (36)	750 ml
2.	**Left**	...	...	Left internal maxillary (32)	500 ml
3.	**Bilateral**	...	...	Right internal maxillary (40)	500 ml
4.	**Right**	...	...	Right internal maxillary (50)	No surgery
Gelfoam:					
5:					
First admission	**Right**	...	...	No embolization	2,500 ml (no embolization)
Second admission:					
First attempt	**Right**	**Right**	Right	Right ascending pharyngeal (11); right internal maxillary (6)	250 ml
Second attempt	...	...	...	No embolization	...
Third attempt	**Right**	...	...	No embolization	...
6.	**Bilateral**	**Bilateral**	Left	Left internal maxillary (14); right anterior pharyngeal (10); left anterior pharyngeal (5)	No surgery
7.	**Left**	**Left**, *right*	Left	Left anterior pharyngeal (20); left internal maxillary (55)	1,700 ml
8:					
First admission (no arteriogram)	...	...	...	...	2,250 ml (no embolization)
Second admission	**Left**	...	Left	Left internal maxillary (18)	1,100 ml (postembolization)
9.	...	**Right**	...	Right internal maxillary (18); right anterior pharyngeal (10)	500 ml
10.	**Right**	...	...	Right internal maxillary (50)	500 ml
11.	**Right**	...	...	Right internal maxillary (30)	400–450 ml
12.	**Right, Left**	...	**Bilateral**	Right internal maxillary (21)	1,200 ml
13.	**Left**	**Left**	Left	Left internal maxillary (20); left anterior pharyngeal (7)	No surgery
14:					
First attempt	**Right**	...	...	Right internal maxillary (10)	500 ml
Second attempt	**Right**	...	...	Right internal maxillary (40)	No surgery
15*	**Left**	**Left**	Left	Left internal maxillary (32)	1,600 ml

Note.—Words in boldface type indicate major blood supply.

* From Albany Medical Center Hospital.

.10.75.	Admitted to Ward 7
.10.75	Seen with NWG. Obviously a very extensive lesion but has been successfully treated by cryosurgery in the past. At the present, boy is having no epistaxis and is really symptom free. To irradiate this would mean a very large volume of tissue to be treated and do not think this justified at this age. Discussed with Mr Potter and agreed that patient should go home, continue with his studies, and that Mr Potter will follow him up at Barrow and refer him back, if necessary. NOT TREATED. UNSUITABLE. RSP/mjj
.10.75	X-RAY REPORT. S.T.V. Neck, Post Nasal Space, Sinuses with Tomos, and Base of Skull with Stereos: There is a large homogeneous soft tissue mass in the right choanal region with a well defined rounded border jutting about 1½ to 2 cms. beyond the hard palate into the naso pharynx. The mass also protrudes forward into and is blocking most of the right nasal cavity. In addition there is evidence of invasion into the ethmoidal sinuses on the right and there is associated destruction of bone in the antero-ethmoidal boundary. The other sinuses appear normal. Chest: The lung fields are clear and no lesion is seen in the bones mediastinum, heart or diaphragms. JPB/rar (Discussed with BE)
10.10.75	Discharged home.
.,12.75	Was seen by a radiotherapist in Birmingham as an emergency as he was bleeding in November. Then seen by Mr Dalton, ENT Surgeon at Birmingham who thought that further surgery was indicated but that XRT, although it may have a place eventually, was not indicated then. Patient was anxious to have surgery done nearer home and therefore referred to Mr Potter. On 28.11.75 palate was split and the naso pharyngeal portion of the tumour was removed entirely. There was however a portion going through the pterygo maxillary fissure into the cheek which could not be felt out through the naso pharynx. Mr Potter referred him today for opinion as to whether XRT to cheek should now be considered. No pain. No bleeding. Very swollen right cheek. Discuss with RSP then letters. MBD/
18.12.75	Discussed with RSP. Not very happy about giving XRT but might be worthwhile admitting patient for further radiological examination and then consider when in whether should give treatment. IP WL NTC, early January, for RSP. Notes to RSP on admission to arrange appropriate radiographs. OAK HOUSE.MBD/gma
5.1.76.	Admitted to Ward 7.
8.1.76	There is a large extension through the pterygoid mandibular fossa into the right cheek. I am not at all satisfied that there is growth in the right cheek. There are some adhesions which bleed very easily. Still would be unhappy to irradiate this boy. RSP to discuss withMBD NWG/RSP/jam
.1.76	Not at all anxious to irradiate this boy and would prefer further surgery Discharge home.Letter Mr.Potter. RSP/jam NOT TREATED. SURGICAL.
6.1.76	X-RAY REPORT. Sinuses (Including Hypocycloidal Tomography), P.N.S. (including Lateral Tomography & Stereo Skull Base Views): There can be no doubt that the large mass noted previously in the right P.N.S. has diminished in size to such an extent that it is now hardly demonstrable in the lateral and basal views of this area. The posterior cuts of the hypocycloidal tomography still demonstrate residual shadowing high in the nasal cavity and, if anything, there is rather more mucosal opacity of the posterior aspect of the right maxillary sinus now. All in all it could well be that what we are presently seeing is residual soft tissue thickening as a result of previous XRT especially since I cannot now define a mass similar in contour (let alone size) of the type previously demonstrated. BE/rar
9.1.76	Discharged. Not treated. Surgical. jle

On radiographic investigations the X-ray chest was normal. The X-ray paranasal sinuses Water's and Caldwell's view showed haziness in the right nasal cavity and right maxillary sinus without bony destruction. The X-ray nasopharynx revealed a mass occupying the entire nasal cavity, nasopharynx and upper part of the oropharynx.

The contrast CT scan axial and coronal views revealed a large well defined moderately enhancing nasopharyngeal mass extending into the right nasal cavity with widening of the pterygopalatine fossa laterally, into the sphenoid sinus, right optic canal and middle cranial fossa encroaching on the posterior and medial aspect of the right cavernous sinus superiorly and into the oropharynx inferiorly (Figs 1a,b,c).

The diagnosis of JNA with intracranial extension (Cavernous sinus) was made and the patient was advised surgery - combined lateral rhinotomy with transpalatal approach. Pre-operatively 5 units of blood were transfused to the patient to bring the haemoglobin to 11 gm%; general anaesthesia was given. The right external carotid artery was ligated. A lateral rhinotomy and transpalatal incisions were taken. The lateral rhinotomy incision was extended sublabially. The flaps were elevated and the maxillary antrum was opened and inspected. The medial wall of the maxilla, especially the anterosuperior part was removed partially to expose the tumour which was then inspected and it was gently dissected out by finger dissection and gentle traction from all its anterior and superior attachments including infratemporal, nasopharyngeal and lastly the intracranial part was removed by guarded traction and dissection. Brisk bleeding from the venous plexus of the right cavernous sinus ensued but was controlled with gentle pressure applied over gelatin sponge, reinforced with moistened cottonoids. After removal of the intracranial part the defect in the periosteum and medial wall of the right cavernous sinus was seen.

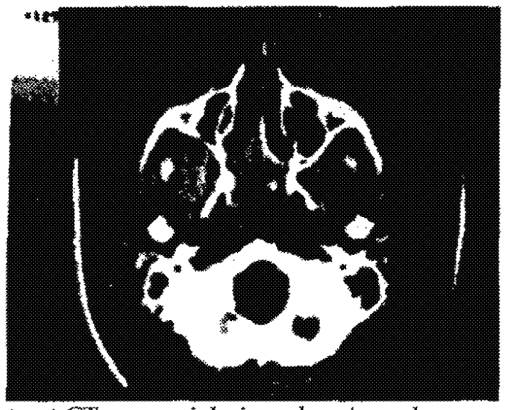


Fig.1a Contrast CT scan axial view showing a large well defined moderately enhancing mass involving the right nasal cavity nasopharynx, pterygopalatine fossa and infratemporal fossa

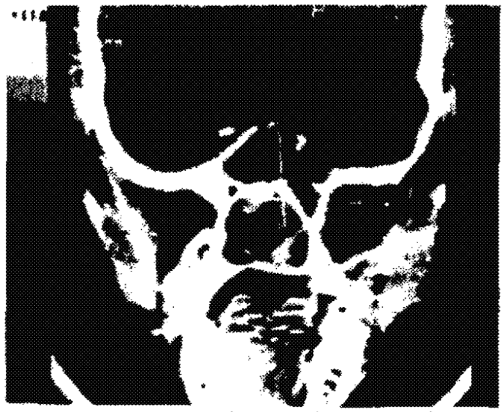


Fig.1b Contrast CT scan coronal view showing a large well defined moderately enhancing mass involving the nasopharynx,infratemporal

averaging nearly 2,400 ml. After embolization, the average blood loss at surgery was about 800 ml. In seven cases, 500 ml or less was lost at surgery.

Discussion

The concept of therapeutic embolization of lesions of the head and neck can be traced to as early as 1930 when Brooks [7] reported embolization of a carotid-cavernous fistula. The first embolization of an intracerebral lesion, an arteriovenous malformation, was reported in 1960 by Leussenhop and Spence [8]. This stimulated the exploration of embolization in the management of intracranial lesions deemed surgically untreatable. However, extraaxial vascular lesions of the head, neck, and spinal cord constitute the majority of therapeutic interventional procedures. Juvenile angiofibroma presents an ideal situation for embolization, but reports of embolization of this lesion are scant [3–5, 9–13].

Several excellent articles discuss the pathologic, clinical, and radiographic (including angiographic) aspects of juvenile angiofibromas [2, 12, 14, 15]. The angiographic findings are sufficiently characteristic to provide a tentative diagnosis and provide assistance in planning surgical therapy.

The primary indication for preoperative embolization is to reduce intraoperative blood loss. In two of our patients, blood loss before embolization averaged nearly 2,400 ml. The overall average intraoperative blood loss after embolization in our series was about 800 ml. Similar conclusions were drawn by Pletcher et al. [4] in Gelfoam embolization of seven cases.

No permanent complications of therapeutic embolizations occurred in our series. The dreaded complication that must be prevented is escape of emboli into the intracranial circulation [9]. In no case in this series was there any evidence of intracerebral ischemia.

Developmental variations of the branches of the external carotid arterial tree, notably ophthalmic artery origin from the middle meningeal artery and communications between the posterior division of the ascending pharyngeal artery with the vertebral artery, must be excluded before embolization. The occipital artery may communicate directly with the vertebral artery at the level of the posterior arch of the first cervical vertebra, the so-called proatlantal artery.

Although the superficial temporal artery was embolized, in all our cases the profuse arterial supply to the scalp prevented any necrosis [16]. Pain in the scalp, noted in about one-third of the patients, was attributed to transient ischemia. The pain may be sufficient to require narcotic analgesia, but always for only a brief period, with remission after 1–3 days. Low-grade fever was noted within 48 hr after embolization in three patients, but blood cultures were negative and temperature elevation was ascribed to tissue ischemia in each case.

Angiography establishes the diagnosis of juvenile angiofibroma, although the clinical features are usually sufficient to suggest the diagnosis. Tomography, preferably pluridirectional, is important to define the extent of the lesion. Embolization was shown in these 15 cases to be of major benefit as a presurgical adjunct.

References

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University Hospitals of Morecambe Bay NHS
NHS Trust

Department: Patient Records
Hospital: Furness General
Direct Dial: 01229 - 491175
Direct Fax: 01229 - 491398

Our Ref: DE/MR/Medical Notes

17th November 2009

CONFIDENTIAL

GRO-A

Shropshire
GRO-A

Dear Mr GRO-A

I am writing to you to confirm that we no longer hold your North Lonsdale Hospital medical records here at Furness General Hospital, they have since been culled.

As you have not attended Furness General Hospital in the last 9 years we do not have any records for you on our computer data base or paper based medical records.

I hope this information will be of assistance to you.

Yours sincerely

GRO-C

Mrs Marrianne Rough
Legal Officer
Patient Records Department
FURNESS GENERAL HOSPITAL

3

MBD/gms/75/6178 29 September 1975
Barrow: 39934A

Mr J Potter
Consultant ENT Surgeon
North Lonsdale Hospital
Barrow

Dear Mr Potter

Mr GRO-A
GRO-A

Thank you for referring this patient with the nasal pharyngeal fibroma, in view of his recent bleeding. As you feel that he may have a severe haemorrhage when he is away from home, at college, I will arrange for him to be admitted to the Christie Hospital for x-ray treatment to this.

Yours sincerely

M B DUNHIE
Consultant Radiotherapist

Copy: Dr R H MacCranthin
11 Duke Street
Askam

fossa and extending into the sphenoid sinus and middle cranial fossa

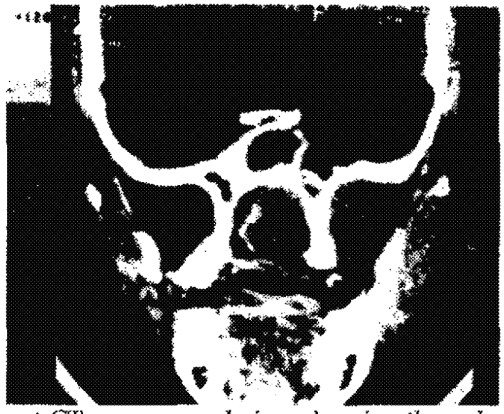

Fig.1c Contrast CT scan coronal view showing the enhancing mass involving the right cavernous sinus.

No CSF leak was found. No attempt was made to repair the defect. Simultaneously through the transpalatal incision removal of the nasopharyngeal attachments of the tumour was done by finger dissection.

Inspite of ligation of the right external carotid artery, the patient bled profusely and we had to transfuse 3 pints of blood and 2 pints of fresh frozen plasma intraoperatively and 2 pints of blood in the immediate post-operative period. Anterior nasal packing was done and the incisions were sutured. The pack was removed in the operation theatre after 72 hours under general anaesthesia and we encountered no active bleeding.

The gross appearances of the tumour was a round, nodular, nonencapsulated pink mass which measured 8 cm x 4 cm in dimension. Histopathological examination revealed fibrous connective tissue with endothelium lined/spaces confirming the diagnosis of angiofibroma (Figs. 2 and 3).

DISCUSSION

Juvenile nasopharyngeal angiofibroma (JNA) is a locally aggressive benign vascular tumour. It affects mainly adolescent males and the diagnosis is often made at a relatively late stage, after the patients have had symptoms for several months. The typical initial symptoms include nasal obstruction, epistaxis, pain, nasal discharge and hearing impairment.[4]

The diagnosis and assessment of tumour extension are made on the basis of clinical symptoms and radiographic investigations, including computed tomography (CT) and angiography.

A staging system similar to that proposed for cancer by the American Joint Committee has been suggested by the Chandler et al in 1984. According to this classification, in Stage I tumour is confined to the nasopharynx and in Stage II tumour extends into the nasal cavity and/or sphenoid sinus. In Stage III tumour extends into one or more of the followings: maxillary antrum, ethmoid sinus, pterygomaxillary and infratemporal fossae, orbit and/or cheek. Tumour extension intracranially is stage IV.

Treatment modalities include pre-operative arterial embolization[5] and Surgery.[6] In cases with intracranial extension of the tumour which occurs in 10% to 20%7 different modalities of treatment have been tried such as irradiation6 or intracranial surgery.[7]

Tumours invading the cavernous sinus have generally been considered inoperable because of the high likelihood of bleeding from the cavernous venous plexus, or potential injury to the internal carotid

Juvenile angiofibroma

Juvenile angiofibroma is a noncancerous growth of the back of the nose or upper throat.

Causes

Juvenile angiofibroma is not very common. It is usually found in adolescent boys. The tumor contains many blood vessels, spreads within the area in which it started (locally invasive), and can cause bone damage.

Symptoms

- Difficulty breathing through the nose
- Easy bruising
- Frequent or repeated nosebleeds
- Hearing loss
- Nasal discharge, usually bloody
- Prolonged bleeding
- Stuffy nose

Exams and Tests

The doctor may see the angiofibroma when examining the upper throat.

Tests that may be done include:

- Arteriogram to see the blood supply to the growth
- CT scan of the head
- MRI scan of the head
- X-ray

Biopsy is generally not recommended due to the high risk of bleeding.

Treatment

Treatment is required if the angiofibroma is growing larger, blocking the airways, or causing repeated nosebleeds. In some cases, no treatment is necessary.

Surgery may be needed to remove the tumor. Removal is often difficult because the tumor is not enclosed and may have spread deeply to other areas.

A procedure called embolization may be done to prevent the tumor from bleeding. The procedure may correct the nosebleeds by itself, or it may be followed by surgery to remove the tumor.

Outlook (Prognosis)

Although not cancerous, angiofibromas may continue to grow. Some

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18.11.2009 Our Ref. 19836

GRO-A

Dear Mr GRO-A

Enclosed please find photocopies of letters from 1976 – 1976 as requested. We have now record of any other operations since then.

Yours sincerely

GRO-C

Wellington Road Surgery

Your 39934A
RSP/mjj/75/6178
15 October 1975

Mr J Potter
Consultant ENT Surgeon
North Lonsdale Hospital
BARROW IN FURNESS
Lancs

Dear Mr Potter

NR GRO-A

This is the young man with the nasal pharyngeal fibroma whom we discussed. Detailed radiology was carried out here and reported as follows.

X-RAY REPORT - CTV NECK POST NASAL SPACE SINUSES WITH TOMOS AND BASE OF SKULL WITH STEREOS - There is a large homogeneous soft tissue mass in the R. choanal region with a well defined rounded border jutting about 1½ to 2cms beyond the hard palate into the nasopharynx. The mass also protrudes forward into and is blocking most of the right nasal cavity. In addition, there is evidence of invasion into the ethmoidal sinuses on the right and there is associated destruction of bone in the antero-ethmoidal boundary. The other sinuses appear normal.

CHEST - The lung fields are clear and no lesion is seen in the bones, mediastinum, heart or diaphragm.

My own feeling here is that any course of x-ray treatment would be quite a major procedure with real risks of sequelae in later life. At the moment, Mr GRO-A is not having any marked epistaxis and is keen to get on with his course. I would be very interested to hear of his progress in due course but I have made no arrangements to see him again.

Yours sincerely

R S POINTON
Consultant Radiotherapist

Copy to:
Dr R H MacGranthin
11 Duke Street
ASKAM IN FURNESS
Lancs

artery or one of the cranial nerves.[8] In addition, surgical defects in the dura surrounding the cavernous sinus can be difficult to repair, leading to the possibility of an uncontrollable cerebrospinal fluid leak.[9] Based largely on these concerns, most surgeons addressing the treatment of intracranial angiofibromas have advocated either non-surgical treatment or incomplete resection of tumour involving this structure.[10,11]

The unusual and interesting finding in our case are that inspite of being a large and extensive JNA the patient had no symptoms of intracranial and/or cavernous sinus involvement. Since the tumour is benign, encapsulated and extradural it was dissected out by gentle traction and finger dissection by combined transpalatal and lateral rhinotomy approach.

The advantage of this approach is that it is less morbid than intracranial surgery which involves traction on the cerebrum with risk of anaesthesia and other complications of intracranial surgery. Therefore we recommend it for JNA with intracranial extension in selected cases.

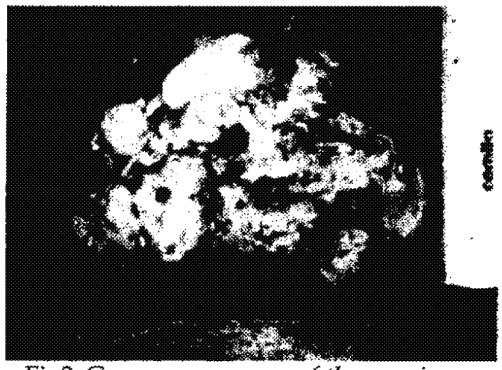

Fig2. Gross appearance of the specimen

Fig.3 Microphotograph showing features of angiofibroma (H and E) x 40.

ACKNOWLEDGEMENT

We are grateful to Dean, Dr. (Mrs) NA Kshirsagar for allowing us to publish this paper.

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may disappear on their own.

It is common for the tumor to return after surgery.

Possible Complications

- Anemia
- Pressure on the brain (rare)
- Spread of the tumor to the nose, sinuses, and other structures

When to Contact a Medical Professional

Call your health care provider if you often have nosebleeds.

Prevention

There is no known way to prevent this condition.

Alternative Names

Nasal tumor; Angiofibroma - juvenile; Benign nasal tumor

erences

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Update Date: 9/9/2009

Updated by: Linda J. Vorvick, MD, Medical Director, MEDEX Northwest Division of Physician Assistant Studies, University of Washington, School of Medicine; Seth Schwartz, MD, MPH, Otolaryngologist, Virginia Mason Medical Center, Seattle, Washington. Also reviewed by David Zieve, MD, MHA, Medical Director, A.D.A.M., Inc.

NORTH LONSDALE HOSPITAL

(BARROW & FURNESS HOSPITAL MANAGEMENT COMMITTEE)
TEL. BARROW 24201

E.N.T. DEPARTMENT

BARROW-IN-FURNESS,
LANCASHIRE.

JP/PI/D/74/39934.A

29th April, 1974.

Dr. R. H. A. McGranthin,
11 Duke Street,
Askam-in-Furness.

Dear Dr. McGranthin,

re: GRO-A 57.),
GRO-A

This man was admitted on 23rd April, via the Casualty Department, with an epistaxis. This settled with bed rest and packing and he was discharged home on 29th April. His haemoglobin was 13.4 gms.%.

Examination of the nose showed no obvious bleeding point but there was some swelling in the post-nasal space which I was not sure was due to the presence of a blood clot or a possible tumour. I am going to have another look at him next week and if the swelling is still evident, will get him in for an examination under anaesthesia.

Yours sincerely,

GRO-C

J. Potter, F.R.C.S.

WBD/gma/75/C178 18 December 1975
Barrow 399344

Mr J Potter
North Lonsdale Hospital
Barrow

Dear Mr Potter

Mr GRO-A
GRO-A

As you know, I saw this boy with you at Barrow last Friday with the remaining part of the naso pharyngeal fibroma in the cheek. I have discussed the problem again with Dr Pointon. He thinks that further radiographs should be carried out and I am therefore arranging for Mr GRO-A s admission to the Christie Hospital for this and for assessment at that time as to whether x-ray treatment is indicated. However, we may decide against giving him any radiotherapy at present.

Yours sincerely

W B DUTHIE
Consultant Radiotherapist

Copy: Dr R H MacGranthin
11 Duke Street
Askam

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To section TOC

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Conditions and Treatments

Angiofibroma (Juvenile nasopharyngeal angiofibroma)

Overview

Angiofibroma is a benign nasal cavity tumor that almost exclusively affects adolescent boys. It also may be referred to as *juvenile nasopharyngeal angiofibroma* (JNA).

The age range for this disease is 7 to 19 years old, with most patients being diagnosed between 10 and 19 years old. Juvenile nasopharyngeal angiofibroma is the most common benign tumor of the nasopharynx, but has a relatively low incidence and accounts for only 0.5 percent of all head and neck tumors. Though benign, it often acts in a malignant manner by eroding into the surrounding sinuses, orbit, or cranial vault.

The preferred surgical treatment at UPMC for angiofibroma is the **Endoscopic Endonasal Approach (EEA)** to remove the tumor. This innovative, minimally invasive technique uses the nose and nasal cavities as natural corridors to access hard-to-reach or previously inoperable tumors. EEA offers the benefits of no incisions to heal, no disfigurement to the patient, and a faster recovery time. If complementary treatments such as radiation therapy and chemotherapy are needed, those therapies can begin soon after surgery.

- **View diagnosis of this condition »**

Diagnosis

The doctor will perform a physical exam and ask about any symptoms. The most common symptoms are nasal obstruction, epistaxis (nose bleeding) and rhinorrhea (runny nose).

Patients also may develop facial deformities or abnormalities, including:

- cheek swelling
- drooping eyelids
- bulging eyes
- cranial nerve palsies

Hearing loss may result from obstruction of the Eustachian tube. Double vision or blindness may result from pressure on the optic nerves and chiasm if there is erosion into the cranial cavity. Rarely, patients with a JNA may suffer anosmia — the loss of the sense of smell.

On physical exam, a pale, smooth mass may be visible inside the nasopharynx. Because the tumor is composed of blood vessels without a muscular coat, a biopsy could lead to extensive bleeding and generally is not performed.

An MRI or CT scan of the head and facial bones confirms the clinical diagnosis and shows the extension of the tumor.

- **View treatment for this condition »**

Treatments

Treatment options include:

Surgery

Juvenile angiofibromas are treated most often by surgery. These tumors can be reached directly by using the ***Endoscopic Endonasal Approach (EEA)***. This state-of-the-art, minimally invasive surgical procedure uses the nose as a natural corridor to reach these lesions, without any incisions in the face or head.

NORTH LONSDALE HOSPITAL

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TEL. BARROW 24201

N.T. DEPARTMENT

BARROW-IN-FURNESS,
LANCASHIRE.

JP/PL/D/39934.A

3rd June, 1974.

Dr. R. H. A. MacGranthin,
11, Duke Street,
Askam-in-Furness.

Dear Dr. MacGranthin,

re : GRO-A 57.),
GRO-A .

This boy was admitted in April with an epistaxis which settled with packing and bed rest. There was no obvious bleeding point but he did have polypoidal excretions in the right posterior nares. I got him in for biopsy of these. This showed it was a fibroma and had possibly arisen from the posterior end of the inferior turbinate and was not therefore of any great significance.

He has had no further bleeding since his discharge home and I believe he is on antihistamines for his hayfever.

I have not arranged to see him again but would be pleased to do so if necessary.

Yours sincerely,

GRO-C

J. Potter, F.R.C.S.

Your 3993/A
RSP/mjj/75/6178
15 January 1976

Mr J Potter
Consultant ENT Surgeon
North Lonsdale Hospital
BARROW IN FURNESS
Cumbria

Dear Mr Potter

MR GRO-A

This young man with the nasopharyngeal angioma, was admitted, as arranged, by Miss Duthie. In himself, he was really very well and had no complaints. On examination, the most significant feature was, of course, the palpable tumour in the right cheek. I had detailed radiology carried out and this has been reported as follows.

X-RAY REPORT - SINUSES (INCLUDING HYPOCYCLOIDAL TOMOGRAPHY), PNS(INCLUDING LATERAL TOMOGRAPHY & STEREO SKULL BASE VIEWS) - There can be no doubt that the large mass noted previously in the right PNS has diminished in size to such an extent that it is now hardly demonstrable in the lateral and basal views of this area. The posterior cuts of the hypocycloidal tomography still demonstrate residual shadowing high in the nasal cavity and, if anything, there is rather more mucosal opacity of the posterior aspect of the right maxillary sinus now. All in all, it could well be that what we are presently seeing is residual, soft tissue thickening as a result of previous treatment, especially since I cannot now define a mass similar in contour (let alone size) of the type previously demonstrated.

I do not think that there is any evidence to suggest that the palpable mass in the right cheek has shown any significant change. I have discussed his management with Miss Duthie and I am still very loath to irradiate this boy and would feel, in the long run, that surgery would offer him the best chance of eradication without producing permanent change or stigmata. I have not arranged to see him again but would be very happy to do so at any time.

I hope this is agreeable to you.

Yours sincerely

R S POINTON
Consultant Radiotherapist

Copy to
Dr R H MacGranthin
11 Duke Street
ASKAM IN FURNESS
Lancs

Therapeutic Embolization of Juvenile Angiofibroma

Glenn H. Roberson[1, 2]
Ann C. Price[3]
James M. Davis[1]
Amar Gulati[1, 4]

Therapeutic embolization of juvenile angiofibromas was performed in 15 boys, aged 12–18 years, 11 of whom subsequently underwent surgery. Intraoperative blood loss was reduced from an average of 2,400 ml in nonembolized patients to 800 ml after embolization. Angiography is of value to confirm the diagnosis prior to excision and to delineate the extent of the tumor. Embolization may be performed at the same sitting as a presurgical adjunct or possibly as a definitive or palliative therapeutic method. The embolization procedure is discussed in detail, emphasizing techniques and potential hazards of such procedures.

Juvenile nasopharyngeal angiofibroma is a benign, highly vascular hamartoma that arises from the nasopharynx almost exclusively in adolescent males. Although histologically benign, the tumor is locally invasive and has a predilection to recur if not completely removed. The most common initial symptoms are epistaxis and nasal obstruction. Biopsy is hazardous due to the danger of massive hemorrhage. Reported modes of therapy include surgery, radiation, cryotherapy, electrocoagulation, hormonal therapy, embolization, and injection of sclerosing agents, as well as observation in the hope of spontaneous regression [1]. Surgical removal is currently the most widely accepted mode of therapy, but this may be accompanied by significant hemorrhage, often greater than 2,000 ml.

Angiography before treatment is indicated to define the extent of the lesion, the amount of vascularity, and the nature of the feeding vessels. In defining the margins of the tumor, assessment of intracranial extent is of particular importance since surgery then presents additional hazards [1]. The angiographic features are characteristic, and a preoperative diagnosis is usually possible prior to biopsy [2]. In addition, preoperative embolization of the tumor aids in diminishing blood loss at surgery, thereby allowing for more complete excision [3, 4]. We describe the angiographic findings in 15 patients and discuss the results of preoperative embolization.

Materials and Methods

Radiographic evaluation begins with plain films of the nasopharynx and paranasal sinuses, and often shows a sizable nasopharyngeal mass in the lateral view. Tomography, preferably pluridirectional, is usually necessary to delineate the lesion in the frontal view and to define extension into the pterygomaxillary space and the paranasal sinuses (fig. 1).

Radiographic findings include expansion of the pterygoid maxillary fissure with anterior displacement of the posterior wall of the maxillary antrum and posterior displacement of

Received June 20, 1978; accepted after revision June 6, 1979.

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[2] Present address: Department of Radiology, Albany Medical Center Hospital, Albany, NY 12208. Address reprint requests to G. H. Roberson.
[3] Department of Radiology, Albany Medical Center Hospital, Albany, NY 12206.
[4] Present address: Department of Radiology, George Washington University Medical Center, Washington, D.C. 20052.

AJR 133:657–663, October 1979
0361–803X/79/1334–0657 $00.00

An angiogram, which is an imaging test that uses x-rays to view blood vessels that have been injected with a contrasting dye, may be performed prior to surgery to allow for embolization of the tumor. **Embolization** involves cutting off the blood supply of the tumor and significantly reduces blood loss during surgery.

Radiation Therapy

Radiation therapy may be used for patients with tumors that have extended into the cranial cavity, whose tumors can't be reached safely by surgery, or who have tumor recurrences.

Chemotherapy

Hormonal flutamide, which blocks testosterone receptors, has been shown to reduce tumor size effectively. The use of this medication is restricted to those enrolled in clinical trials.

- **« Back to overview of this condition**

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NORTH LONSDALE HOSPITAL

(CUMBRIA AREA HEALTH AUTHORITY, SOUTH WEST CUMBRIA DISTRICT)
Tel. BARROW 24201 (STD. 0229)

E.N.T DEPARTMENT
JF/EJS/39934A

BARROW-IN-FURNESS.
CUMBRIA,
LA14 2JD.
20th October, 1974.

Dr. McGranthin,
11 Duke Street,
Askam-in-Furness

Dear Dr. McGranthin,

re: GRO-A 57)
GRO-A

Further to my letter of 16th September. Examination of this boy's nasal pharynx confirmed that he has a naral pharyngeal angio-fibroma and although benign this is a potentially lethal tumour and should be dealt with. I am going to get him in for its removal in a few weeks.

Yours sincerely,

GRO-C

J. Potter F.R.C.S.

Mr. Derek W. Skinner, *F.R.C.S.(Ed.), F.R.C.S.(Eng.).*
Consultant ENT Surgeon

The Apley Clinic,
The Princess Royal Hospital,
Telford, TF6 6TF.

01952-273001 (Appointments)

The Shropshire Nuffield Hospital,
Longden Road,
Shrewsbury, SY3 9DP.

01743-282500 (Appointments)

Home Tel: GRO-C (Fax: GRO-C)
EMail: dwskinner@ GRO-C

To Whom It May Concern,

10th January 2010

Dear Sir,

re: GRO-A (Date of Birth GRO-A 57),
GRO-A

I would like to confirm the following details concerning GRO-A s past medical history.

These details have been provided by discussing GRO-A 's past medical history with GRO-A and also from data given to me by GRO-A including several letters/records taken from past surviving medical records. Original medical records have been destroyed following the closure of North Lonsdale Hospital :

A letter dated 15/1/1976 from Dr R.S. Pointon, Christie Hospital, Withington;
a letter dated 29/4/1974 from Mr J. Potter, Consultant ENT Surgeon, North Lonsdale Hospital;
a letter dated 3/6/1974 from Mr J. Potter, Consultant ENT Surgeon, North Lonsdale Hospital;
a letter dated 28/10/1974 from Mr J. Potter, North Lonsdale Hospital;
a letter dated 16/12/1975 from Dr M.B. Duthie, Christie Hospital, Withington;
a discharge letter dated November 1974 for hospital admission at South West Cumbria District (North Lonsdale Hospital);
Medical record details and letters from the Christie Hospital, registered from 26/9/1975 to discharge on 9/1/1976.

I understand that GRO-A has been diagnosed as Hepatitis C and that a possible source for the hepatitis C has been considered. I would confirm that GRO-A had a diagnosis of a nasopharyngeal juvenile Angiofibroma and this diagnosis was made in 1974 following a history of recurrent severe epistaxes.

Examination at that time confirmed the possibility of the nasopharyngeal juvenile Angiofibroma and Mr GRO-A subsequently underwent x-rays at that time (no imaging by CT or MRI was invented at that time), by way of definition of this lesion and for planning for surgery. This type of lesion is a very highly vascular lesion which has a very marked reputation for causing presenting symptoms related to profuse bleeding in children and in young adults. The main treatment for nasopharyngeal Angiofibroma involves excision of the lesion and sometimes consideration for radiotherapy. Because of the degree of vascularity of the lesion, present treatment in 2009 would normally include embolization using interventional radiology to achieve a significant reduction in the blood supply to the tumour, prior to considering surgery for removal. Despite this, the treatment for this lesion would be highly likely to cause significant bleeding during the surgical procedure. It is noted however, that this lesion was excised in 1974 and subsequently required further excision at a second operation twelve months later in December 1975. I would therefore expect that no radiological procedure would have been undertaken to specifically reduce the vascularity of this lesion in 1974 or 1975, and therefore one would expect considerable bleeding at the time of surgery both in 1974 and in 1975. It would therefore seem very highly probable indeed, that GRO-A would have required at least one or more blood transfusions at or around the time of both of these operations.

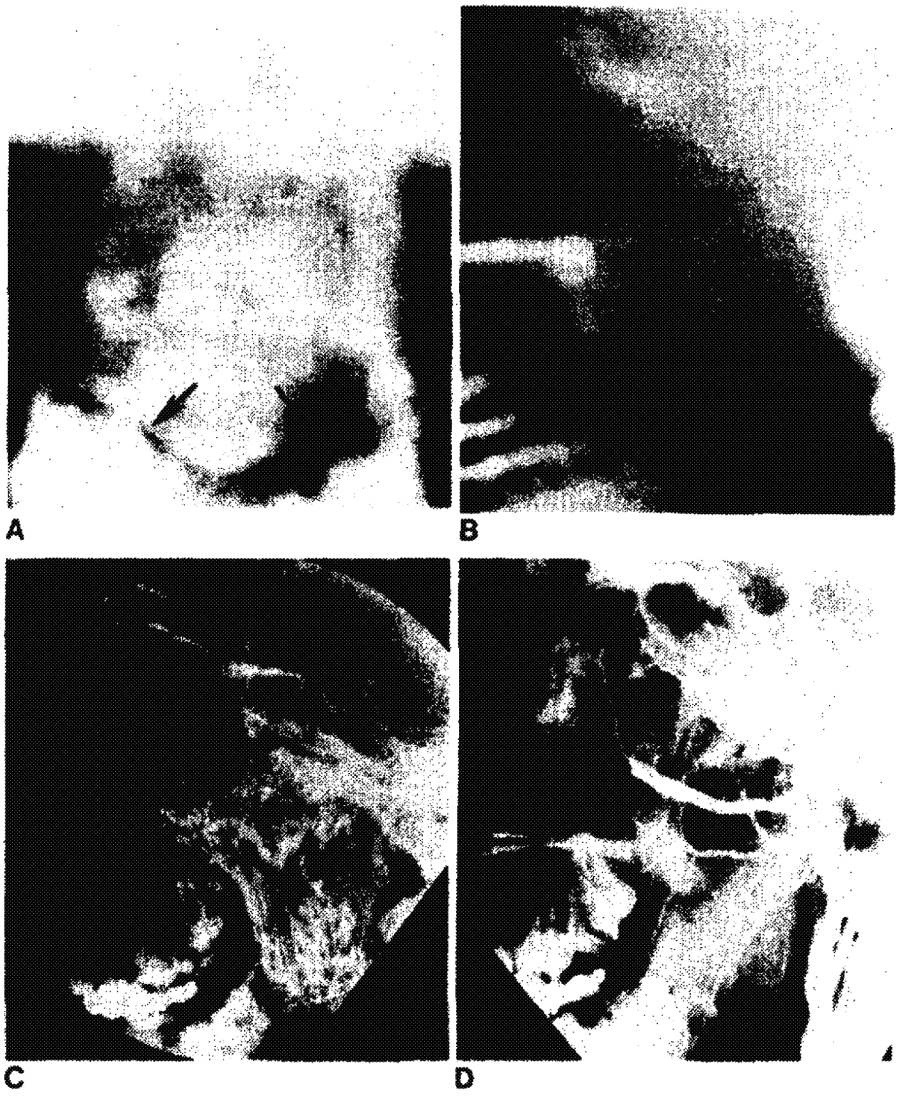

Fig. 1.—Case 6. Pluridirectional tomography in frontal (A) and sagittal (B) views. Huge right-midline nasopharyngeal mass (arrows), with extension into sphenoid sinus. Right selective external maxillary angiography before (C) and after (D) embolization show vascularity and postembolization results.

the pterygoid plates in all cases except one. The sphenoid sinus was involved in seven of the 15 cases.

Angiographic features are consistent, typically marked hypertrophy and increase in the number of arteries without beading, segmental narrowing, dilation or aneurysm formation. The circulation is rapid through the hamartoma with early appearance of larger venous channels. The vascularity is relatively homogeneous and prominent, with the hypervascular periphery of the lesion distinguishing the lesion from concomitant fluid retention within paranasal sinuses (figs. 2 and 3).

The patient should have nothing by mouth the day of angiography or embolization. For premedication, 100 mg of secobarbital is given intramuscularly about 30 min before commencement of the procedure. Local anesthesia usually suffices, but on occasion, general anesthesia has been necessary for patients with emotional stress or instability. It is advisable to have an intravenous line in place in order to administer medication as required. Two methods of embolization were used in our series. The first method uses large (9 or 10 French) Teflon catheters via direct approach, combined with Silastic spheres (Heyer-Schulte Corp., Santa Barbara, Cal.) according to techniques originated by Hilal [5, 6]. This method was used on the first four cases, which were previously described [3]. The second embolization technique, gelatin foam pledgets via transfemoral catheter approach, was used in the other 11 cases (12 embolization procedures). Using the Seldinger technique, a 5 French catheter (BD RPX065) is selectively positioned in the external carotid branch to be embolized.

Gelatin foam (Gelfoam, Upjohn Co., Kalamazoo, Mich.) is commercially available in sterile pads commonly used for surgical procedures. The pad is cut into strips several centimeters long and 2–3 mm in diameter. The long strips are cut into segments 3–5 mm long and compressed by rolling each fragment between the thumb and index finger, obtaining a final dimension of 1 × 3–4 mm. A single gelatin foam pledget is then placed in the tip of a 5 ml saline-filled syringe and the embolus is then gently flushed into the catheter. As the embolus passes through the catheter, resistance

BCM
Baylor College of Medicine

Bobby R. Alford Department of Otolaryngology-Head and Neck Surgery

Juvenile Nasopharyngeal Angiofibroma
James O. Fordice MD
September 23, 1993

Juvenile nasopharyngeal angiofibroma (JNA) is a histologically benign yet locally aggressive vascular head and neck tumor. JNA affects almost exclusively adolescent boys, but has been reported in women and elderly patients on rare occasions. JNA is an uncommon tumor, with reported incidence between 1 in 5000 and 1 in 60,000 otolaryngology patients. It is estimated to account for only 0.5% of all head and neck neoplasms, but is nevertheless considered the most common benign neoplasm of the nasopharynx.

The histogenesis and pathogenesis of JNA are unclear. Popular theories include abnormal growth of embryonal chondrocartilage, testosterone acting on a hamartomatous nidus of inferior turbinate tissue mislocated in the nasopharynx, and tumor growth from normal nasopharyngeal fibrovascular stroma. Other suggested etiologies include trauma, inflammation, infection, allergy, and heredity.

The site of origin of JNA is usually broad-based, on the posterolateral wall of the nasal cavity, where the sphenoidal process of the palatine bone meets the horizontal ala of the vomer and the root of the pterygoid process of the sphenoid. This area forms the superior aspect of the sphenopalatine foramen, and the posterior aspect of the middle turbinate. From its origin, tumor spreads into the nasal cavity and nasopharynx, displacing the soft palate inferiorly and sometimes becoming visible through the mouth. At the same time, the tumor extends laterally through the sphenopalatine foramen into the pterygomaxillary fossa. From there the JNA exerts pressure on the surrounding bony walls. Anteriorly, it pushes forward the posterior wall of the maxillary sinus, creating the classic "antral bowing sign" visible by x-ray. Posteriorly, it disrupts the root of the pterygoid plates. Superiorly, tumor expands into the orbit via the inferior orbital fissure, continuing eventually into the superior orbital fissure and middle cranial fossa. As tumor squeezes through the superior fissure, it widens the fissure's lower lateral margin, another sign commonly seen radiographically. With further lateral expansion, the tumor will pass through the pterygomaxillary fissure into the infratemporal fossa, often creating a bulging of the cheek. If it reaches the temporal fossa, the tumor can create a bulge above the zygoma. The ultimate danger of unchecked growth by JNA is intracranial extension. The tumor reaches the cranial vault through three paths. The two lateral paths are through the superior orbital fissure and directly through the greater wing of the sphenoid bone from the pterygomaxillary and infratemporal fossae. These paths bring JNA up lateral to the carotid artery and cavernous sinus. The medial path, which can bring tumor into contact with the pituitary and optic chiasm, leads directly through the sphenoid sinus and sella turcica, medial to the carotid and cavernous sinus. Tumor in this area can be extremely difficult or impossible to resect without unacceptable morbidity. Fortunately, this pathway is less common than the lateral pathways.

Grossly, the JNA is a lobulated, firm, non-encapsulated mass, usually pink-gray or purple-red. The tumor base may be sessile or pedunculated, but the tumor often has numerous secondary attachments, complicating resection in continuity.

G/29

CUMBRIA AREA HEALTH AUTHORITY

SOUTH WEST CUMBRIA DISTRICT

Nov 19 74

Dear Dr. Mc Grantham

Your Patient GRO-A

of GRO-A

was discharged from ENT

on 29.11.74

The Diagnosis was Post nasal fibroma

Treatment has been angioma

Excised through

transpalatal incision

Further treatment necessary

Remarks

GRO-C

Signed

A further letter will / will not follow as soon as possible.

Copy to M.O.H. if under 16 years.

GRO-A himself, is aware of blood transfusions that occurred at that time. Equally, GRO-A is also aware that considerable operative measures were taken to reduce bleeding in this period and this included packing of the nasal fossa anteriorly and also packing the nasal fossa and nasopharynx posteriorly. GRO-A is aware that after the main operation in 1974 and in 1975, that he subsequently required a general anaesthetic for removal of the packing some two to three days following the main operation. These packs were specifically inserted to reduce the postoperative bleeding, which would have been very highly likely.

The correspondence from the Christie Hospital suggests consideration was taken for radiotherapy as an adjunctive procedure to prevent further bleeding, however the radiotherapy did not take place due to the possible late consequences of malignant changes in the nasopharynx in later life induced by the radiotherapy to a large volume of tissue, the surgery had also reduced the bleeding.

I understand that all records from North Lonsdale Hospital have now been destroyed and thus it is difficult to corroborate the above details other than through the letters/records available as above. However, treatment of such a tumour in 1974 would almost certainly have required blood transfusion at some stage and the details outlined above would therefore be in keeping with this prospect. I trust the information is of help to you. Should you have any further questions or concerns regarding the above, I would be happy to answer them in further detail.

With kind regards.

Yours sincerely,

GRO-C

Derek W. Skinner, FRCS,
Consultant ENT Surgeon.

cc GRO-A

Shropshire, GRO-A

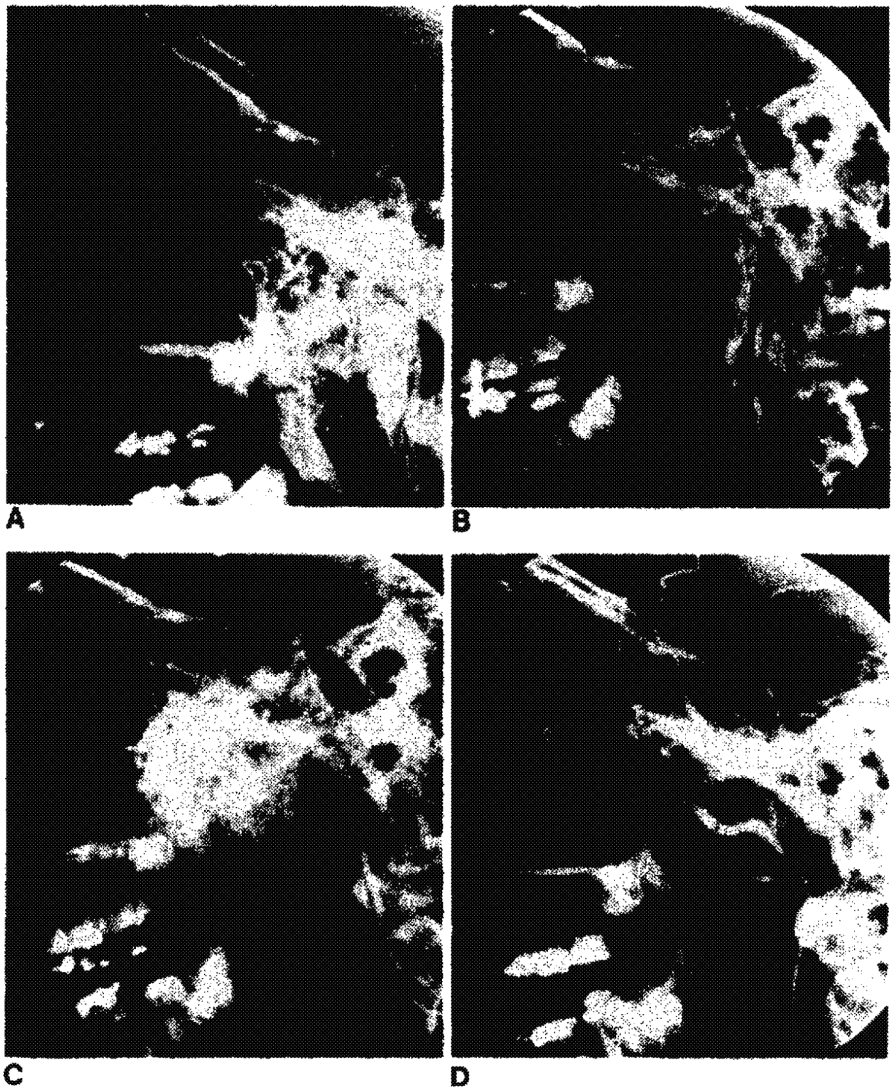

Fig. 2.—Case 7. Left ascending pharyngeal injections before (A) and after (B) embolization. Posterior wall of maxillary sinus displaced anteriorly (*arrows*). Distal external carotid angiograms before (C) and after (D) embolization show desired result.

is appreciable and, as the embolus exits through the catheter tip, extreme caution must be exercised to avoid a rapid injection when the resistance is abruptly released. Injection at a rate exceeding the flow of the artery would result in reflux into proximal arterial trunks and intracranial embolization could occur; this, of course, is imperative to avoid.

Forming the proper curve at the catheter tip is important to facilitate selective positioning of the catheter. In general, it is desirable to have minimal catheter curve since acute catheter curves are difficult to manipulate in small caliber vessels, such as the external carotid artery and its branches. The taper of the catheter tip should be minimal in order to permit passage of emboli. It may be necessary to use a catheter with an acute curve to enter either the common carotid or the external carotid trunk and then to exchange the original catheter with a simple curve catheter using a 250 cm exchange wire.

Maintenance of flow around the catheter assures peripheral passage of the emboli; therefore use of large catheters and wedging is undesirable. Likewise, arterial spasm around the catheter impedes peripheral passage of emboli and should be avoided. Spasm may be treated by direct intraarterial infusion of diluted Xylocaine or diazepam.

The catheter tip is advanced as close to the lesion as possible, usually in the distal external carotid artery at the level of the bifurcation into the superficial temporal artery and internal maxillary artery. Proper catheter position is essential to prevent reflux into the internal carotid artery and avoid the danger of a stroke. When the catheter is in the proper position, the injected emboli lodge in the proximal superficial temporal and middle meningeal arteries early in the procedure with the rest of the emboli entering the angiofibroma due to increased caliber and flow of the internal maxillary trunk.

Embolization of the internal maxillary component is the initial step in each case, continuing until the internal maxillary component appears occluded. As the vascular bed is progressively obliterated, reduction in the rate and volume of flow requires a concomitant

Microscopically, the tumor is composed of thin-walled vessels of varying caliber in a mature connective tissue stroma. The vessels typically have a single endothelial cell lining without a muscularis layer, which probably explains the tumor's propensity for hemorrhage.

The diagnosis of JNA is based on history, physical exam, and radiographic studies. The differential must include other benign and malignant lesions of the nasopharynx; among these are choanal polyp, angiomatous polyp, chordoma, nasopharyngeal carcinoma, rhabdomyosarcoma, nasopharyngeal cyst, and pyogenic granuloma. Biopsy of these tumors is generally condemned as both unnecessary and hazardous. The average age at onset of symptoms is 14 or 18 years, depending on the series quoted. A typical age range is between 7 and 21 years. Patients are almost always male.

The most common presenting symptoms are nasal obstruction and epistaxis. Symptoms have usually been present for several months before the patient is seen. Other less common symptoms include diplopia, blindness, hearing loss, otitis media, rhinorrhea, anosmia, nasal speech, noisy sleep, mouth breathing, eye pain, and headache.

On exam, virtually all patients will have a nasopharyngeal mass, usually pink-to-purple and nodular. Other signs which may be evident include proptosis, palatal bulge, or swelling of the cheek or over the zygoma. As discussed, proptosis and lateral facial swelling are ominous indications of extensive tumor spread. Unfortunately, symptoms are a relatively late development in the growth of JNA; at the time of presentation most patients will have tumor extension well beyond the nasopharynx.

JNA has several characteristic radiographic features. CT scanning is currently the mainstay of diagnosis for JNA. Recent articles have explored the merits of MRI, and some authors consider MRI superior to CT in delineating the margins of tumor and in revealing tumor vascularity. Anterior bowing of the posterior wall of the maxillary sinus, the "antral bowing" sign, can be seen in most JNA patients. Other commonly seen radiographic changes include widening of the inferolateral aspect of the superior orbital fissure, distortion of the roots of the pterygoid plates, erosion of the hard palate, erosion of the medial wall of the maxillary sinus, and displacement of the nasal septum. Of course, the tumor itself will be evident as a soft tissue mass extending into these bony areas. The tumor has a characteristic angiographic appearance in the arterial phase of excessive numbers of dilated, tortuous vessels. In the capillary phase, a homogenous, dense stain is seen. The predominant blood supply of most JNA's is the ipsilateral internal maxillary artery. As it grows, the tumor may parasitize bilateral arterial supply from any nearby vessel. Therefore, bilateral internal and external carotid arteriography is indicated in most patients. In patients who have had previous attempts at surgical resection or who have had previous external carotid ligation, supply from as far away as the vertebrals and thyrocervical vessels has been demonstrated. Arterial embolization has been shown both to decrease intraoperative hemorrhage and to lower rates of tumor recurrence in JNA. Several materials have been tried over the years, including non-absorbable Silastic spheres, Gelfoam, dura mater, and polyvinyl alcohol particles. Absorbable Gelfoam was used at The Methodist Hospital several years ago, but non-absorbable polyvinyl alcohol particles are now preferred.

Tumor staging has long been considered an important framework within which to evaluate the efficacy of therapy. Sessions *et al* from Baylor devised the first staging system for JNA in 1981, based on CT findings. Today, intracranial extension is the criterion most commonly used to divide patients into prognostic and therapeutic groups.

The two primary therapeutic modalities for JNA over the years have been surgery and radiotherapy. Several adjunctive measures have been tried, including embolization, hormonal therapy, and chemotherapy. The main concerns with radiotherapy, which is delivered by external beam, are malignancies in the irradiated field and the danger of inhibiting normal facial growth in younger

(Teaching) SOUTH DISTRICT
District Administrator D. K. Nicholl, M.A., A.H.A.

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WITHINGTON,
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Telephone:
061-448 8123

NBD/gma/75/6178
Barrow: 39934A

18 December 1975

Mr J Potter
North Lonsdale Hospital
Barrow

Dear Mr Potter

GRO-A

As you know, I saw this boy with you at Barrow last Friday with the remaining part of the naso pharyngeal fibroma in the cheek. I have discussed the problem again with Dr Pointon. He thinks that further radiographs should be carried out and I am therefore arranging for GRO-A 's admission to the Christie Hospital for this and for assessment at that time as to whether x-ray treatment is indicated. However, we may decide against giving him any radiotherapy at present.

Yours sincerely

GRO-C

N B DUTHIE
Consultant Radiotherapist

Copy: Dr R H MacGranthin
11 Duke Street
Askam

Mr & Mrs GRO-A

GRO-A

Lancs

GRO-A

Dec 19th 2009

To Whom It May Concern,

We wish to confirm that our son, GRO-A, was admitted into GRO-A Hospital, GRO-A in both 1974 and again in 1975 where he had two operations for the removal of a tumour from his right hand nasal cavity. During and after these operations he had to have blood transfusions to replace the loss of his own blood.
The surgeon who performed the operation in both cases was Surgeon John Potter (now deceased).

Yours sincerely

GRO-A (Father)

GRO-A

GRO-A (Mother)

GRO-A

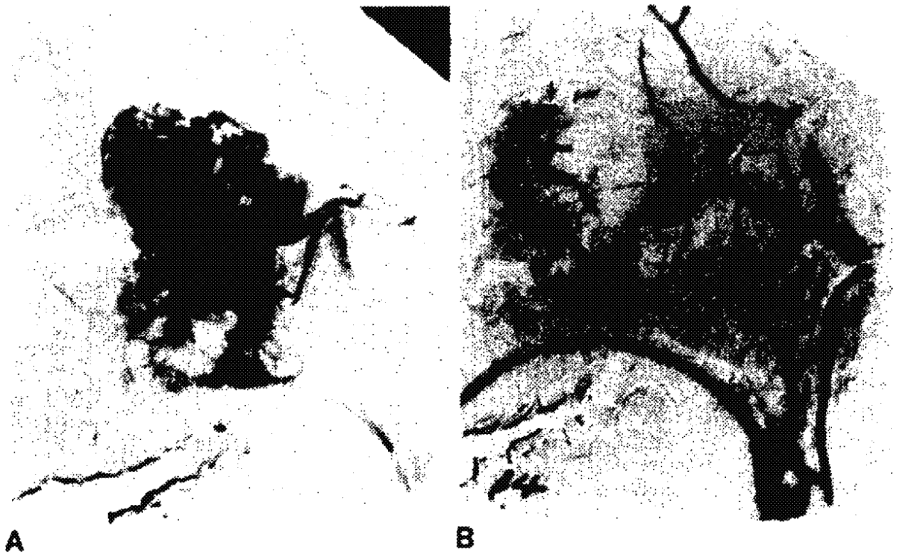

Fig. 3.—Case 8. Lateral distal external carotid angiograms. Wide extent of highly vascular hamartoma (A) and obliteration of most of abnormal vascular bed after embolization (B). Lesion was recurrent, having been previously resected with placement of radon seeds (arrows).

reduction of the rate at which emboli and saline are injected to prevent reflux into the intracranial circulation.

Arterial pressure progressively forces emboli into the periphery of the tumor so that in time, parts of the vascular bed, initially occluded, become reopacified. A delay of 15–30 min permits peripheral packing of emboli and facilitates more thorough embolization. During this period other vessels (such as the ipsilateral ascending pharyngeal) that supply the tumor may be angiographically evaluated and embolized if indicated. Sequential fluoroscopy and angiography provide accurate monitoring of the success of embolization. The catheter is then returned to the distal external carotid for further embolization as the gelatin foam that was initially injected has become packed more peripherally into the lesion.

For unilateral lesions, embolization of the internal maxillary artery and ascending pharyngeal artery completes the case. For those lesions crossing the midline, angiography of the contralateral internal maxillary and ascending pharyngeal arteries was performed followed by embolization.

A critical juncture in the procedure is determining the end point, at which time further embolization is unnecessary or inadvisable. Once the vascular bed is obliterated and emboli accumulate within the supplying vessel, additional embolization is not efficacious. Usually after 20–40 emboli have been introduced, perfusion is reduced by 90%–95% and the procedure is terminated.

Case Material

Juvenile angiofibroma was studied in 15 patients over a 7 year period; four of these were previously reported [3]. All the patients were boys, aged 12–18 years. Nasopharyngeal mass, nasal obstruction, difficulty breathing, and epistaxis were the most common reasons for admission. Symptom duration varied from 1 month to 4 years.

Representative Case Report

Case 5

M. E., an 18-year old boy, was admitted to Massachusetts Eye and Ear Infirmary with a 6 month history of difficulty breathing through his nose, bifrontal headaches, and epistaxis. He had been operated on for "polyps" at an outside hospital 6 months prior to this admission. The surgery was accompanied by massive bleeding that required 3 weeks of additional hospitalization.

On admission, sinus films demonstrated polypoid thickening of the mucosa in the right maxillary antrum and a mass in the nasopharynx. A selective transfemoral bilateral external carotid arteriogram demonstrated a large vascular nasopharyngeal tumor located mainly to the right of midline, consistent with a juvenile angiofibroma. The mass was supplied almost exclusively from the right internal maxillary branches. It extended from the posterior nasopharynx as far forward as the posterior wall of the right maxillary sinus, which was displaced forward superiorly at least as high as the floor of the sphenoid sinus and inferiorly as far as the posterior part of the hard palate.

The patient was subsequently discharged on stilbestrol 15 mg daily for 2 weeks and returned for removal of the tumor, which consisted of temporary ligation of the right external carotid and a combined transantral and transpalatal excision with cryosurgery. Estimated blood loss was 2,500 ml.

He was admitted nearly 1½ years later with a 6 month history of recurrent epistaxis. Polytomography of the sinuses demonstrated a lobulated right posterior nasopharyngeal mass with extension into the sphenoid sinus, right maxillary antrum, and possibly the right ethmoid air cells. Transfemoral bilateral internal carotid, external carotid, and ascending pharyngeal arteriography demonstrated recurrent angiofibroma supplied primarily from the right ascending pharyngeal artery (figs. 4A and 4B) and also by branches of the internal maxillary artery on the right (fig. 4C). Additional supply was from the right ophthalmic artery. After arteriography, the catheter was positioned in the right ascending pharyngeal artery, and 11 gelatin foam fragments were introduced with subsequent obliteration of flow to the tumor. The catheter was then positioned in the distal external carotid artery on the right just at its bifurcation and there was subsequent partial occlusion of the superficial temporal and middle meningeal arteries after introduction of 17 gelatin foam fragments. The distal stem of the internal maxillary artery was also occluded (fig. 4D). After embolization, the patient underwent surgery for resection of a recurrent tumor via a medial maxillectomy approach (1 day after angiography). Estimated blood loss was 250 ml.

He was admitted for a fifth time nearly 3 years after initial

patients. Cummings found that, although symptomatic relief is fast, regression of tumor with radiation is slow. In his study, 50% of patients treated with primary radiotherapy had visible tumor in the nasopharynx or nasal cavity 12 months after treatment. Fifty percent of patients who had visible tumor at two years suffered eventual recurrence. Most recurrences after radiotherapy have been blamed on geographic misses, but some authors have blamed inadequate dosing. The proper dosage of radiotherapy is debated. Cummings *et al* declared 30 Gy for three weeks adequate for tumor control, and found no greater control at higher dosages. Economou *et al* from UCLA found doses of more that 36 Gy to be required for adequate tumor control. Some have suggested 30 to 35 Gy for moderately-sized tumors, with larger doses for extensive tumors. McGahan *et al* from Baylor recommend primary irradiation for intracranial tumor using 40 to 46 Gy with 180 cGy fractions.

Most authors prefer surgical treatment in all patients with extracranial disease, and reserve radiation for "unresectable" intracranial tumors or as post-operative adjunctive therapy when residual tumor has to be left behind. Concerns with surgical management include intra-operative death secondary to exsanguination, tumor recurrence, and intra-operative injury to vital structures during attempted resection. In the literature, tumor control rates with a single surgical procedure generally range from 70% to 90%.

Many surgical approaches have been used against JNA. The decision regarding approach is usually made after reviewing radiographic studies to assess tumor extent, blood supply, and presence or absence of intracranial extension. Midfacial degloving provides good exposure to the target area with excellent cosmesis. Techniques have been combined as necessary to provide full exposure for most tumors. In the case of JNA with extreme lateral extension, a transzygomatic infratemporal approach has been used. Intracranial JNA is estimated to occur in 20% to 25% of cases. Operative complication, recurrence, and mortality are all closely linked to intracranial extension. Invasion lateral to the cavernous sinus is generally considered resectable, while invasion of the sinus itself or medial penetration, with involvement of chiasm and/or pituitary, is generally deemed unresectable and treated with radiotherapy.

Twenty male patients with JNA were seen at The Methodist Hospital between 1981 and 1993. The average age was 14.65, and ages ranged from 9 to 21 years. Sixteen patients underwent surgery, and four received radiation therapy. Eighteen patients were treated primarily, and two were transferred from outside institutions after unsuccessful treatment. Seven patients presented with epistaxis and obstruction respectively, and five patients presented with these two symptoms together. One patient presented with rhinorrhea. The most common tumor stage using the Sessions staging system was 2B. All patients underwent arteriogram; surgical candidates were embolized, with Gelfoam in the early part of the series, and with PVA for the latter patients. Several different approaches were used; midfacial degloving is the most popular approach currently. All irradiated patients received 46 Gy dosing. There were five recurrences: four surgical, one radiotherapy. Recurrences came with virtually every surgical approach, equally with both kinds of embolic materials, and with both early and late stage patients. Average estimated intraoperative blood loss was about one liter, with six patients requiring transfusions.

Our experience at Baylor suggests that most extracranial tumors can be controlled in one procedure with a carefully planned approach, but that recurrences can occur at all tumor stages. Likewise, most intracranial tumors can be controlled with 40 to 46 Gy of radiotherapy with low morbidity.

Case Presentations

Case 1

A 9-year-old boy presented to the otolaryngology service with a history of several months of nasal congestion and a one-month history of occasional epistaxis. On

UNIVERSITY HOSPITAL MANAGEMENT COMMITTEE OF SOUTH MANCHESTER
Group Secretary: A. H. Keales, M.B.E., F.C.I.S., F.H.A.

CHRISTIE HOSPITAL & HOLT RADIUM INSTITUTE,
WITHINGTON,
MANCHESTER,
M20 9BX

Telephone:
061-445 8123

Your 39934A
RSP/mjj/75/6178
15 January 1976

Please forward.

GRO-C

10

Mr J Potter
Consultant ENT Surgeon
North Lonsdale Hospital
BARROW IN FURNESS
Cumbria

Dear Mr Potter

MR GRO-A

This young man with the nasopharyngeal angioma, was admitted, as arranged, by Miss Duthie. In himself, he was really very well and had no complaints. On examination, the most significant feature was, of course, the palpable tumour in the right cheek. I had detailed radiology carried out and this has been reported as follows.

X-RAY REPORT - SINUSES (INCLUDING HYPOCYCLOIDAL TOMOGRAPHY), PNS(INCLUDING LATERAL TOMOGRAPHY & STEREO SKULL BASE VIEWS) - There can be no doubt that the large mass noted previously in the right PNS has diminished in size to such an extent that it is now hardly demonstrable in the lateral and basal views of this area. The posterior cuts of the hypocycloidal tomography still demonstrate residual shadowing high in the nasal cavity and, if anything, there is rather more mucosal opacity of the posterior aspect of the right maxillary sinus now. All in all, it could well be that what we are presently seeing is residual, soft tissue thickening as a result of previous treatment, especially since I cannot now define a mass similar in contour (let alone size) of the type previously demonstrated.

I do not think that there is any evidence to suggest that the palpable mass in the right cheek has shown any significant change. I have discussed his management with Miss Duthie and I am still very loath to irradiate this boy and would feel, in the long run, that surgery would offer him the best chance of eradication without producing permanent change or stigmata. I have not arranged to see him again but would be very happy to do so at any time.

I hope this is agreeable to you.

Yours sincerely

GRO-C

R S POINTON
Consultant Radiotherapist

Copy to
Dr R H MacGranthin
11 Duke Street
ASKAM IN FURNESS
Lancs

GRO-A

To whom it may concern

I wish to confirm that my brother GRO-A was admitted to GRO-A Hospital in GRO-A in the years 1974 and 1975, where he underwent two operations for the removal of a tumour from his right hand nasal cavity. During these operations he was given blood transfusions to replace the associated loss of blood. The surgeon was Mr J Potter now deceased.

Yours sincerely

GRO-A

GRO-A

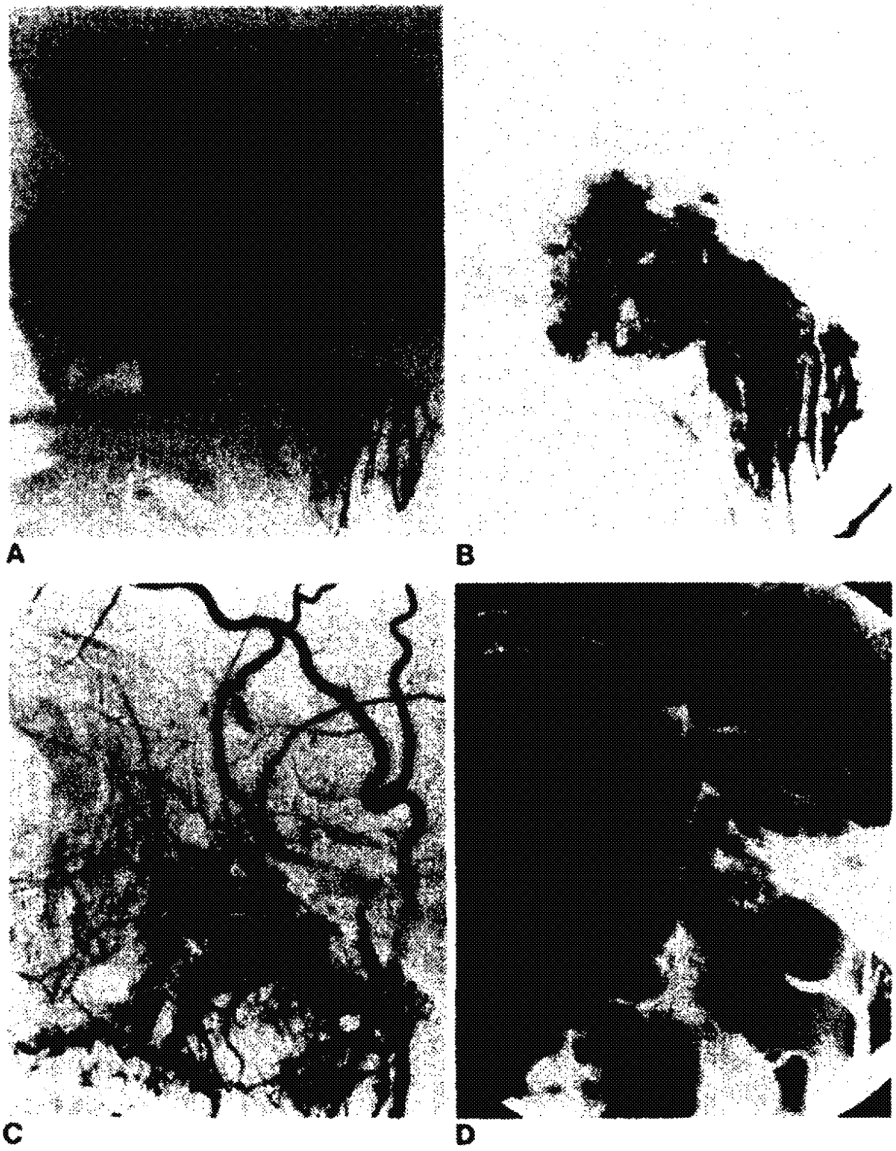

Fig. 4.—Case 5. A and B, Right selective ascending pharyngeal injections, lateral view. Early arterial phase (A), arterial supply. (Ant = anterior). Early venous filling and dense blush (B). C and D, Right selective external carotid angiograms. C, Arterial supply from internal maxillary artery branches. D, Postembolization occlusion of internal maxillary stem (*arrow*).

hospitalization because of bitemporal headaches and pain behind the eyes and in the back of the head. Transfemoral bilateral external and right internal carotid arteriography demonstrated a small amount of residual juvenile angiofibroma on the right side within the pterygomaxillary fissure. There was no evidence of intracranial extension. Repeat selective right external carotid, right internal carotid, and left common carotid arteriography 14 months later demonstrated enlargement of the residual tumor with involvement of the lower half of the sphenoid sinus and lateral extension into the region of the pterygomaxillary fissure. The main blood supply was from the internal maxillary artery on the right. No intracranial extension was demonstrated. The ascending pharyngeal artery was not selectively catheterized.

Results

The results of 16 embolic procedures on 15 patients are summarized in table 1. In case 14, the lesion recurred after radiation therapy, embolization, and surgery. A second embolization and surgical resection were performed. The rest of the patients have not required reembolization or further surgery, although the resection was subtotal in several cases.

The arterial supply to the tumors consisted of the internal maxillary artery, which supplied the angiofibroma in every case in this series, and the ascending pharyngeal artery, which was the major feeding vessel in five of the 15 patients.

Embolization was performed at the same time as initial angiography in the last nine embolic procedures. Of the 16 embolization procedures, 11 consisted of unilateral internal maxillary embolization, four of unilateral internal maxillary plus ascending pharyngeal embolization, and one of bilateral internal maxillary and ascending pharyngeal embolization.

Operative blood loss before embolization was significant,

examination the patient had a large fleshy mass completely filling the nasopharynx. CT scanning on the day prior to admission revealed a nasopharyngeal soft tissue mass with extension into the paranasal sinuses and bony destruction. Bilateral internal and external carotid arteriograms showed primary feeding vessels from pterygomaxillary branches of the right internal maxillary artery, with no significant contributions from the right internal carotid or from the left carotid system. The patient had polyvinyl alcohol particle embolization of the right internal maxillary feeders, and on the next day underwent resection of tumor through a right lateral rhinotomy approach. Estimated blood loss was 1250 cc, and the patient received one unit of packed red blood cells. He tolerated the procedure very well and was discharged on the sixth post-operative day.

Case 2

A 20-year-old white man presented to the otolaryngology service with recurrent epistaxis and nasal obstruction. He had been diagnosed in 1986 with juvenile nasopharyngeal angiofibroma (JNA) with intracranial extension, and had been treated at that time with 4600 cGy of radiotherapy. He had an excellent clinical response with resolution of his symptoms, and subsequently had been asymptomatic until a few months prior to this clinic visit. Examination revealed a nasopharyngeal mass, and CT scanning of the head and sinuses revealed a soft tissue mass occupying the nasopharynx, left maxillary sinus, sphenoid sinus, and left pterygomaxillary fossa. Bilateral external and left internal carotid arteriography revealed that the primary feeding vessels to the tumor were branches from the left internal maxillary artery, with small contributions from a branch of the cavernous segment of the left internal carotid artery and the right internal maxillary artery. Bilateral embolization of the internal maxillary feeding vessels was performed using polyvinyl alcohol, and on the next day the patient underwent resection of tumor via a midfacial degloving approach. Estimated blood loss was 500 cc. The patient tolerated the procedure very well, required no transfusions, and was discharged home on the sixth postoperative day.

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Wilmslow Road
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Direct Tel: GRO-C
Hospital Tel: 0845 226 3000
Email:Diane.Williams @ GRO-C
Internet: www.christie.nhs.uk

Our Ref:
Your:

Date: 27th December 2009

GRO-A

Shropshire
GRO-A

Dear Mr GRO-A

Enclosed copy medical records as requested on the 22nd November 2009

Please do not hesitate to contact me for further information

Yours Faithfully,

Diane Williams
Legal Secretary (Health Records)
GRO-C

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GRO-A

Dec 18th 2009

To Whom It May Concern,

I wish to inform you that my brother, GRO-A was admitted into GRO-A GRO-A Hospital, GRO-A in both 1974 and again in 1975. On both occasions he had operations for the removal of a tumour from his right hand nasal cavity. I can confirm that during and after these operations he had to have blood transfusions to replace the loss of his own blood.

The surgeon who performed the operation in both cases was Surgeon John Potter (now deceased).

Yours sincerely

GRO-A

GRO-A

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