Malignancies of the Ear:-Unusual Presentations

Vidya Rokade, Lecturer **A. Y. Dehadaray**, Asso. Prof. **S. B. Ghan**, Chief Resident,
Dept of ENT **Sasson General Hospital Pune 411001.**

Abstract

- A] Two unusual cases of squamous cell carcinoma of ear.
 - i) One presenting as brain abscess.
 - ii) Other one presenting as recurrent polyp of the ear.
- B] -case of Rhabdomyosarcoma presenting as mastoid abscess in a one year old male child with VIth & VIIth cranial nerve palsy.
- C] A case of squamous cell carcinoma of the year-having recurrent post operative haemorrhage treated by external carotid artery ligation followed by radiotherapy.

Squamous cell carcinoma of the external auditory meatus & middle ear is commonly seen in males over the age of 50 years. Pre-existing C. S. O. M. is the main pre-disposing cause of carcinoma of the middle ear, other one is irradiation injury. In advanced cases it is very difficult to determine the site of origin.

Prognosis of the squamous cell carcinoma of the external auditory meatus is better than that for the middle ear. For middle ear squamous cell carcinoma radical surgery followed by post operative radiotherapy gives better result. This treatment produces a crude 5 year survival rate of about 25-35%.

Invasion of the petrous apex, eustachian tube, dura, indicates poor prognosis. Presence of lymphadenopathy & distant metastasis indicates inoperability.

In children rhabdomyosarcoma is common, but average age of presentation is 4-5 years. 5 year survival rate of those with intracranial extension is noted in months.

Case Report

Case 1

A 35 years old female reported in the E. N.T. O.P.D. of Sasson General Hospital, Pune in

June 95, with complaints of right otorrhea since 2 months; swelling in the right postaural region with discharging fistulla since 5 days, leftotorrhea since last one half month. She was also complaining of fever with chills, projectile vomiting, headache & giddiness for last two days.

Her detail examination findings were as follows. Her general condition was not good, her pulse rate was 60/min, B.P. 94 /60 mm Hg., Severe pallor, without any cervical lymphadenopathy, I.J.V. tenderness was present. patient was drowsy. There were no other localising sings, cranial nerve examination was normal. Papilloedema terminal neck stiffness were present. Right ear examination revealed a polyp and granulation in the post superior region. Left ear showed the small central perforation in the anteroinferior quadrant. Nose & throat examination was normal. All routine investigation with x-ray mastoid Schullers view & C. T. Scan were done, mean while I. V. antibiotics & manital & Dexamethasone were started. Meanwhile her pulse started deteriorating. So the mastoid exploration was done. During surgery we found that the mastoid was full of granulations. Sinus plate, dural plate & posterior canal wall were eroded. All soft tissues including small polyp in EAC were sent for H. P. E.

C. T. Scan (Fig 1 & 2) showed :- Hypodense fluid containing lesion with ring sign in right temporal region suggestive of abscess 3.9 x 5.6

Fig. 1 Hypodense Fluid containing Lesion in the Temporal region (3.9x5.6 cm) with ring sign suggestive of Abscess with medical shift 8 cerebral edema

cm Midline shift with cerebral edema. Patient was referred to neurosurgeon. burr hole aspiration was done, about 60-70 cc. Xanthochromic fluid aspiration was done. Fluid study showed 3-8 gm% proteins, 40% nuclear cells, culture sensitivity showed no growth. H.P.E. report showed well different squamous cell carcinoma Grade II.

Fig. 2 Erosion of the sinus plate of Posterior canal wall

Comment

A young female patient presented with right ear unsafe C.S.O.M. with signs of increased intracranial tension with brain abscess. C.T. Scan showed huge fluid containing lesion with ring sign in the right temporal region suggestive of temporal lobe abscess.

Case 2

A 28 years old male reported in E.N.T. O. P. D. of Sasson General Hospital Pune in July 95 with complaints of right otorrhea for last 4 months, earache & headache for last 2 months tinnitus in right ear & facial asymmetry on right side for last one month. His left ear was operated in 1991. His right ear was operated in private hospital in May 95. At that time simple polypectomy was done. H.P.E. report showed angiolymphoid hyperplasia infected. After that he developed right earache which was continuous & relieved temporarily by analgesics. In June 95 he developed right sided L.M.N. type facial palsy. Then mastoidectomy was done. During surgery mastoid was filled with vascular granulations attached to dura, infiltrating media wall of middle ear. Then he was referred to the Sassoon General Hospital. The granulation grew rapidly. Biopsy was obtained & sent for H.P.E. H.P.E turned out to be moderately differentiated squamous cell carcinoma with sebaceous differentiation.

C.T. Scan (Fig 3) showed erosion of cranium with extension of growth into middle cranial fossa.

He was subjected to radiotherapy. He completed the radiotherapy. For pain relief patient was referred to the pain clinic.

Comment

A young male patient presented with recurrent right aural polyp. Eventhough repeated H.P.E. showed no evidence of malignancy, it finally turned out to be squamous cell carcinoma. Hence careful follow-up in case of recurrent aural polyps is necessary.

In both the cases patients were young, duration of otorrhea was not more than 2 months but presented with extensive tumour. In case 1,

patient's general condition was poor, presentation was like C. S. O. M. with brain abscess. Case 2 presented with recurrent aural polyp.

Fig. 3 Erosion of the Cranium with extension of the Growth in to Middle cranial Foss

Case 3

A one year old male child was referred to E.N.T.O.P.D. in Nov. 95, with history of left ear otorrhea for 3 weeks, vomiting and altered sensorium since 3 days, left side L.M. N. VIth cranial nerve palsy & VIIth cranial nerve palsy since 3 days. History of it mastoid abscess & D was performed in private hospital. After that patient was referred to S.G.H for further management.

On the day of admission patient's general condition was not good, pulse 144/min., there was no papilloedema, no neck stiffness, left VIth & VII th nerve palsy. Patient was on I. V. antibiotics & I. V. fluids.

Considering the history of mastoid abscess with VIth & VIIth cranial nerve palsy we decided to explore the mastoid as a life saving procedure. Immediate C.T. Scan was not possible. During surgical procedure we found that mastoid antrum was full of granulation tissue, posterior canal wall was eroded. Granulation tissue was extending into the middle ear, anterior attic region, dural plate was eroded. Posterior canal wall was lowered and cavity was packed with

gelfoam. During the surgery bleeding was profuse, patient received one pint of blood transfusion. All these soft tissue were sent for H. P. E.

Four hours after surgical procedure patient had tonic clonic convulsions, followed by cardiac arrest, subsequently patient died. C.T. Scan was not possible because of financial adverse conditions.

Clinical autopsy findings showed mass in left cerebellopontine angle (Fig 4) attached to meninges encroaching on petrous apex - 4 x 3 x 3 cm. extending into middle cranial fossa, eroding dural plate & extending into the middle ear cavity.

Fig. 4 Clinical autopsy specimen showing mass in CP Angle 4 x3 x3 cm attached to the Meninges

H.P.E. Report

Alveolar type of Rhabdomyosarcoma (Fig . 5)

Comment

A one year old child presented with mastoid abscess, VIth and VIIth cranial nerve palsy. Clinical findings were suggestive of mastoiditis leading to petrositis. mastoiditis is rare in this age group but even the malignancies are rare. Rhabdomyosarcoma is common in paediatric age group but the average age of presentation is 4 to 5 years.

Fig. 5: Micro photograph of Alveolar type of Rhabdomyosarcoma

Case 4

A forty five year old man presented to us in october '95, with left ear otorrhea since childhood but with blood stained discharge post auricular swelling and left L.M.N. facial palsy since one week. Within a week of admission the mass in the post auricular region fungated. C.T. Scan shows soft tissue mass localised to EAC and mastoid. No intracranial extension. Dural plate was intact. Biopsy from the mass as well as EAC granulation was reported as squamous cell carcinoma.

Left radical mastoidectomy with excision of post auricular mass was done in the first week of November '95, Skin closure achieved by

rotation flap. On the tenth post operative day, he had a massive bleed (300 cc, bright red) from the the operative side & no obvious spurter seen. The bleeding was controlled by a pack of hemoloc and tight mastoid bandage. Coagulation profile was normal. He was discharged on the fifteenth post op. day and was advised radiatherapy.

He took a five fractionations and then had minor episodes of bleeding every week for three weeks. Then he had a massive bleed so he was given 2 pints of blood transfusion at a private hospital and referred to Sassoon General Hospital. In the first week of December his left external carotid artery ligation was done. In the mean time he had completed his radiotherapy. The patient has had no bleeding till two months of follow-up. The post auricular wound is granulating.

Comment

A fortyfive year old man presented with unsafe type of ear discharge with facial palsy with granulations in the EAC, which turned out to be squamous cell carcinoma of the EAC and mastoid. Post op. bleeding occurred but no spurter could be identified on repeated examination, hence external carotid artery was ligated inspite of the patient having received radiotherapy completely.

So to conclude whenever granulations, polyp or soft tissue mass seen in external auditory canal, middle ear, mastoid air cells should be sent for H.P. E. irrespective of age and clinical presentation.

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