

Postauricular epidermoid and dermoid cysts in adults

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Background

Compared with other cutaneous cysts of the head and neck region, postauricular epidermoid and dermoid cysts are rare, asymptomatic benign swellings.

Aim

To describe the clinical profile of postauricular dermoid and epidermoid cysts in adults.

Patients and methods

A descriptive retrospective study was conducted on patients older than 16 years, diagnosed histologically with postauricular epidermoid and dermoid cysts who presented to the Ear, Nose and Throat Clinic of the Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria, from January 2005 to December 2017.

Results

A total of eight patients were reviewed: two (25%) males and six (75%) females. The age ranged from 22 to 55 years (mean age, 30.1±11.2 years). Most cases (seven, 87.5%) were epidermoid cysts. The mean duration of cystic swellings was 9.8±5.7 years. All the patients presented with asymptomatic postauricular extracranial cysts mostly at the left postauricular side (five, 62.5%).

Complete surgical excision was carried out for all the lesions, and no recurrence was observed in the two (25%) patients who came for follow-up; the rest were lost to follow-up.

Conclusion

Postauricular cysts, mostly epidermoid cyst, are rare unilateral asymptomatic, extracranial swellings that are associated with a delay in seeking medical intervention.

Keywords:

dermoid cyst, epidermoid cyst, postauricular swellings

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Introduction

Epidermoid and dermoid cysts are developmental cutaneous cysts derived from trapped pouches of ectodermal, nearnormal folds or neural tube and surface ectodermal separation failure [1] and from traumatic implantation of squamous epithelium [2]. Both cysts (epidermoid and dermoid) are lined by a thin layer of ectodermal squamous epithelium, and the presences of skin appendages (true dermoid), containing ectodermal, mesodermal, and ectodermal elements (teratoid), differentiate them from epidermoid cyst [3].

Only 7% of dermoid and epidermoid cysts occur in the head and neck region [1,4]; the latter tend to be more common [1,5]. For site distribution of these cysts, postauricular location is a very rare occurrence [1,6–8].

Postauricular epidermoid and dermoid cysts usually present as an asymptomatic, progressive, painless swelling of varying durations and can recur owing to incomplete excision, most commonly the dermoid type [6,9]. Because of the location and the painless nature of

the cysts, patients may take a long time to seek medical intervention, thereby predisposing in a rare case(s) a malignant transformation, reported in the head and neck epidermoid cyst [8,10].

These rare cases of postauricular cysts have been reported worldwide [1–11]. There is a dearth of report(s) on the postauricular developmental cyst(s) in Nigeria. The study aims to describe the demographic characteristic, symptoms duration, histological diagnoses, and the reason(s) for seeking medical intervention by adults with postauricular cysts who presented to a tertiary hospital in Northwestern Nigeria.

Patients and methods

A retrospective study was conducted on patients older than 16 years, diagnosed histologically with

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postauricular epidermoid and dermoid cysts, who presented to the Ear, Nose and Throat Clinic of the Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria, from January 2005 to December 2017. The tertiary hospital serves as a referral center from neighboring states in Northwestern Nigeria: Gusau, Kebbi and Zamfara.

Informed consent from the patients and the approval of the ethical committee of the institution where the study was carried out were obtained.

The clinical records were analyzed for age, sex, duration, histological types, postauricular side involved (right or left), symptom(s) presentation, reasons for seeking medical intervention, and the recurrence after treatment.

Inclusion criteria included adult patients older than 16 years with postauricular epidermoid and dermoid cysts confirmed histologically. Excluded from this study were patients younger than 16 years and the other developmental cyst(s) in the other sites of the head and neck region.

Data were analyzed by simple statistical analysis, and the result is presented in the table.

Results

Eight patients were seen during the study period, with two (25%) males and six (75%) females. The age ranged from 22 to 55 years, and their mean age was 30.1 ± 11.2 years.

A case of dermoid cyst was recorded, and the rest were epidermoid cysts, with seven (87.5%) cases. All were asymptomatic postauricular cysts as shown in Table 1, and Figs 1 and 2. The duration of the cystic swellings ranged from 2 to 20 years, with a mean duration of 9.8 ± 5.7 years.

Table 1 Distribution of clinical characteristics of adults' with postauricular cysts

Number cases	Sex/age (year)	SD (year)	PS	HD	Follow-up/recurrence
1	F/25	10	Right	Epidermoid	Nil
2	F/30	7	Right	Epidermoid	1 month/no
3	M/20	2	Left	Dermoid	Nil
4	M/30	15	Left	Epidermoid	Nil
5	F/22	6	Left	Epidermoid	2 months/no
6	F/35	7	Right	Epidermoid	Nil
7	F/24	11	Left	Epidermoid	Nil
8	F/55	20	Left	Epidermoid	Nil

F, female; HD, histological diagnosis; M, male; PS, postauricular side involved; SD, duration of cyst.

Most patients (seven, 87.5%) sought medical intervention because of cosmetic reasons. An incidental finding of the postauricular epidermoid cyst was recorded in a patient who sought treatment for different ailment. There was no record of malignant transformation of the postauricular cysts. Complete surgical excision of the postauricular extracranial cysts was carried for all the lesions. No recurrence was seen in the two patients who came for follow-up; the rest of the patients were lost to follow-up (Table 1).

Discussion

Epidermoid and dermoid cysts of the head and neck region are uncommon [1–11]; the usual site is commonly around the orbit [1,12,13]. Developmental cyst(s) rarely occur at the postauricular site [1–11], and this could explain why we had few cases during the study period.

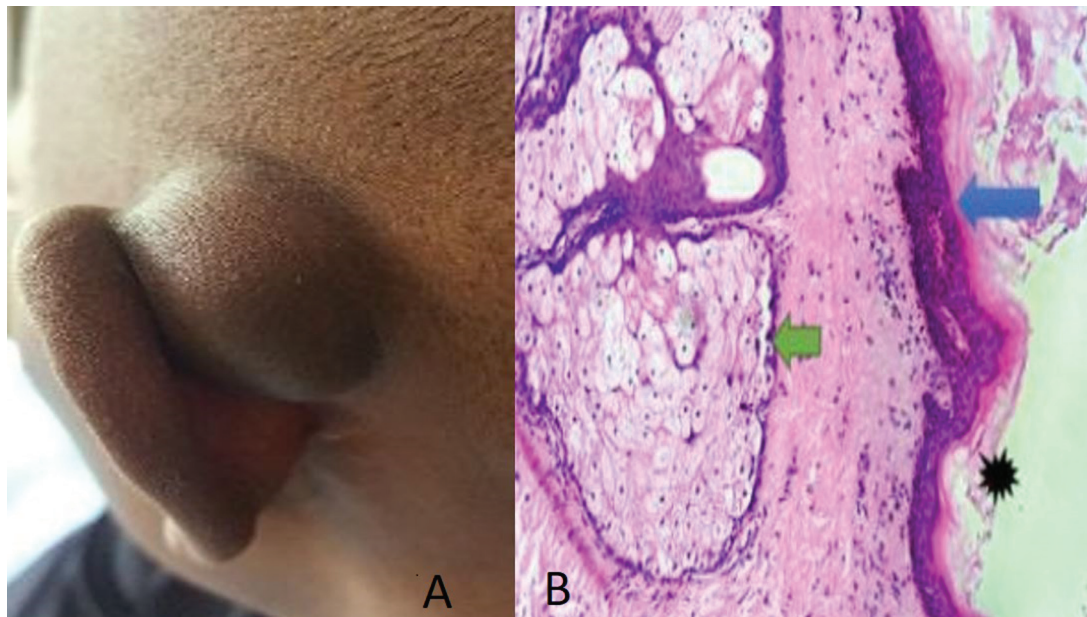
Studies on the head and neck epidermoid and dermoid cysts irrespective of the sites showed that they could occur at any age up to six decades [1–3,14]. These studies included all the age groups and the different sites of head and neck. This is in contrast to this present study, which involves only adults with postauricular epidermoid and dermoid cysts, and their ages were within six decades, which agrees with previous studies [1–3].

Studies have shown that in the postauricular region, an epidermoid cyst is more common than the dermoid cyst, and this present finding agrees with previous reviews [1,13].

Unilateral asymptomatic swelling is usually the main complaint of patients with postauricular cysts [1–14]. The cyst may rupture [15] be inflamed, and be painful [2,5]. However, in this present study, all the patients presented with asymptomatic, unilateral, painless, and unruptured postauricular swellings.

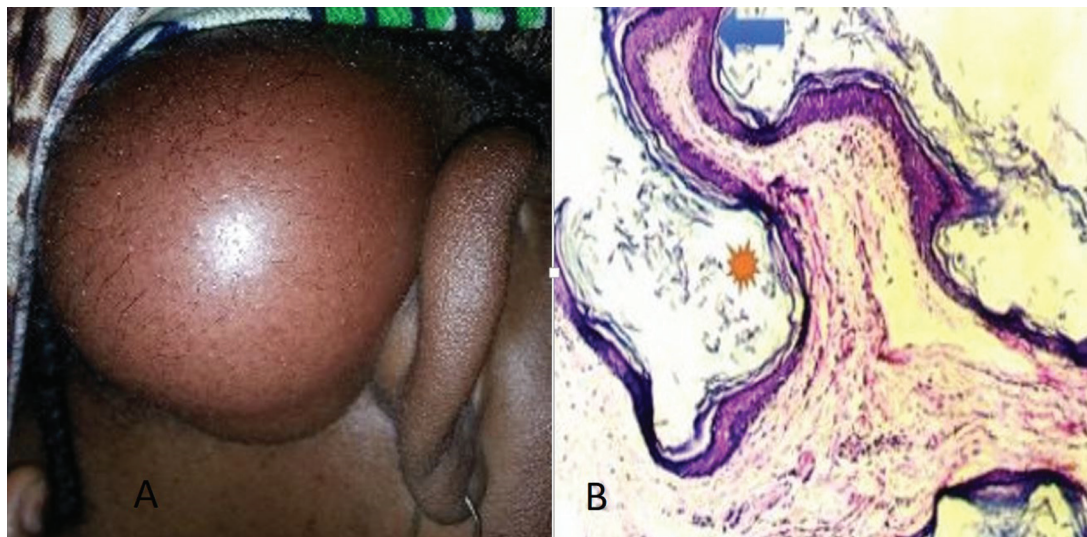
Intracranial extension of temporal bone dermoid cyst are rare, usually more common with midline lesion of the scalp, and hence for mobile, subcutaneous postauricular cyst, management can be done without advanced radiological imaging [16]. We routinely do an ultrasound for any postauricular cyst as the first line of radiological imaging, and computed tomographic scanning is requested for any suspicious intracranial extension. All the patients in this study had postauricular extracranial cysts.

Figure 1



A 20-year-old patient with a left postauricular dermoid cyst (a). Histopathological examination (hematoxylin and eosin, $\times 100$) from the same patient (b) showing cyst lumen (black asterisk) containing a pilosebaceous unit (green arrow).

Figure 2



A 35-year-old patient with a right postauricular epidermoid cyst (a). Histopathological examination (hematoxylin & eosin, $\times 100$) from the same patient showing cyst lumen containing lamellae of keratin (brown asterisk) and a keratinized squamous epithelial lining (blue arrow).

Patients with asymptomatic postauricular cysts sought medical attention after many years with these conditions [2,8]. This could explain in this present review the longer duration for seeking care, as the average duration of the cyst was 9.8 ± 5.7 years before seeking medical intervention. We also noted that the main reason for seeking medical intervention was for cosmetic reasons (87.5%). To buttress the reason(s) for the late presentation, one of these patients with postauricular epidermoid cyst for more

than 20 years, though aware of this condition, sought medical attention for a different ailment. We did not record any case of malignant transformation. The need for early presentation and treatment cannot be overemphasized to forestall this risk, as malignant transformation, though rare, carries a poor prognosis [10,17].

Recurrence of epidermoid and dermoid cysts may occur after incomplete excision [9]. Overall, 75% of our

patients were lost to follow-up, so we could not follow-up most patients. Hence, there is a need for reasonable follow-up after surgical excision to detect and treat the cyst recurrence.

Conclusion

In conclusion, postauricular epidermoid and dermoid cysts are rare in the head and neck region. Asymptomatic nature of this condition most probably contributes to the patient's delay in seeking early medical intervention. The need to create medical awareness for any disease conditions especially for asymptomatic conditions such as cutaneous cysts cannot be overemphasized to prevent malignant transformation, which carries a poor prognosis.

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Conflicts of interest

There are no conflicts of interest.

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