

## SHE WANTS IT DONE

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**هدف الدراسة:** مقارنة ممارسات ثقب شحمة الأذن بقصد الزينة والمضاعفات الناجمة عنها في الأطفال السودانيين والأطفال البريطانيين والفروق البيئية والثقافية والأثنية المرتبطة بذلك .  
**طريقة الدراسة:** تمت هذه الدراسة بمستشفى الأطفال مدني بالسودان ومستشفى مالر العمومي بريكسهايم بريطانيا، حيث طلب إلى مائة من آباء الأطفال البريطانيين وعدد مماثل من السودانيين أن يجيبوا على استبانة عن ممارسات ثقب شحمة الأذن . تم فحص جميع أطفال أفراد العينة من البلدين للتعرف على أي مضاعفات موضعية أو عمومية .

**نتائج الدراسة:** أجاب كل أفراد العينة من البلدين على الاستبانة وكان كل الأطفال السودانيين في العينة من الإناث مقابل 88% إناث من الأطفال البريطانيين . تم ثقب شحمة الأذن لدى 80% من الأطفال البريطانيين قبل عمر 6 سنوات مقارنة بـ 90% من الأطفال السودانيين . أجريت العملية للأطفال في المجموعتين بواسطة أشخاص من غير العاملين في القطاع الصحي . كانت الالتهابات الموضعية وتفاعلات الحساسية الموضعية أكثر المضاعفات في المجموعتين . ظهرت حالات تآلول في مجموعة الأطفال السودانيين وكذلك حالة كزاز واحدة في نفس المجموعة .

**الخلاصة والتوصيات :** تتم ممارسات ثقب شحمة الأذن بقصد الزينة في المجتمعين السوداني والبريطاني في وقت مبكر من العمر . لا تخلو هذه الممارسات من بعض المضاعفات وعلى العاملين في المهن الصحية إبداء النصح فيما يتعلق بسلامة هذه الممارسة إذ يجب أن تختار الأقران من مواد لا تثير الحساسية . كذلك يجب تشجيع استعمال المطهرات الموضعية بصورة منتظمة . ومن المهم أن يدرك الوالدان مخاطر هذه العملية ويمكن الاستمرار في هذه الممارسة فقط عندما يتم تنوير الأبوين بالمخاطر وتزويدهم بالنصائح اللازمة . وعلى مسؤولي الصحة في السودان أن يضعوا التوجيهات التي تضمن سلامة هذه العملية بقصد خفض مضاعفاتها .

**الكلمات المرجعية:** ثقب شحمة الأذن، الأطفال السودانيين، الأطفال البريطانيين، مضاعفات.

**Objective:** To compare ear piercing practices and complications arising therefrom in British and Sudanese children and to seek possible ethnic, cultural and environmental differences.

**Settings:** Maelor General Hospital, Wrexham, UK and Wad Medani Children Hospital, Wad Medani, Sudan.

**Methods:** Parents of a hundred British children and an equal number of Sudanese parents were requested to fill a questionnaire on ear piercing. All children were examined for possible local or systemic complications.

**Results:** All parents answered the questionnaire. Eighty-eight (88%) of the British children were girls while all Sudanese children (100%) were girls. Eighty (80%) of the British children had had their ears pierced before they were 6 years old while 90% of Sudanese children had had their ears pierced below that age. The procedure was performed in both groups by non-medical staff. Local inflammation and allergic

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*contact reactions were the commonest complications in both groups. Keloids were only encountered in the Sudanese children. A case of tetanus was encountered in the Sudanese group.*

**Conclusion and recommendations:** *Ear piercing in both communities is performed at a very early age. This procedure is not without complications and the medical profession should advise safety in this practice. Earrings selected should be of non-allergenic material. Regular application of an antiseptic to the site should be encouraged. The community should be made aware of the hazards and complications of ear piercing. With the awareness of these complications and guided with a set of rules, people may continue the practice (she may have it done). Health authorities in Sudan should formulate guidelines that will ensure hygienic measures and reduce complications.*

**Key Words:** *Ear piercing, Sudanese children, British children, complications.*

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## **INTRODUCTION**

Ear piercing is an ancient cosmetic practice which like other practices such as tattoos have existed for the past 5000 years.<sup>1</sup> The usual site pierced nowadays in females is the ear lobe. High ear piercing, once common in the past, has increased in popularity among European males in recent years.<sup>2</sup> The instruments used to pierce ears include: needles, safety pins, sharpened studs, self-piercing kits and spring-loaded guns.<sup>3</sup>

This simple and widely-practiced procedure is not without complications, some of which are sometimes serious and life-threatening. These complications include: metal allergy or contact dermatitis,<sup>4-8</sup> parenterally transmitted hepatitis,<sup>9-12</sup> local ear infections,<sup>13</sup> granuloma formation,<sup>14</sup> keloids<sup>15,16</sup> and embedded earrings.<sup>3</sup> Brookes and Moriarty reported an infant who presented with a combination of upper airway obstruction and atlanto-axial subluxation secondary to a pharyngeal abscess resulting from cosmetic ear piercing.<sup>17</sup> It is worth mentioning that all serious complications reported in literature were case reports rather than epidemiological data collected from studies of large numbers of people.

The objective of this study is to compare ear piercing practices and complications arising from them in both British and Sudanese children, looking for possible ethnic, cultural and environmental differences.

## **METHODS**

Parents of a hundred British white children at the Maelor General Hospital, Wrexham, UK were randomly selected to complete a questionnaire on ear piercing. The same number of parents of a hundred Sudanese children in Wad Medani Children Hospital, Wad Medani, Sudan were requested to complete the same questionnaire. Both groups were randomly selected at the outpatient clinics in these two government hospitals. The information sought were: age, sex, age at the time of ear piercing, the technique used for piercing, who performed it, where it was done, the type of earrings used, the complications resulting from the procedure and the reasons given by parents for ear piercing.

## **RESULTS**

One hundred British mothers and the same number of Sudanese mothers whose

children had had their ears pierced were requested to fill a questionnaire.

All mothers in both groups responded to the questionnaire. Eighty-eight percent of children in the UK group were girls, 12% were boys. All the Sudanese children were girls. Eighty percent of the children in the Caucasian group had had their ears pierced before the age of 6 years. All Sudanese children had had their ears pierced before that age. The majority of them (90%) were done during the first two years (Table 1).

**Table 1:** Age at the time of ear piercing

Age in years	British children (%)	Sudanese children (%)
0-2	45	90
3-4	22	6
5-6	13	4
7-8	7	-
9-10	5	-
11-12	3	-
13-14	3	-
15-16	2	-
<b>Total</b>	<b>100</b>	<b>100</b>

**Table 2:** Complications of ear piercing

Complications	British children (%)	Sudanese children (%)
No complication	70	50
Local infections	17	23
Contact dermatitis and allergic reactions	7	10
Embedded earring	3	3
Deformed ear	2	1
Keloid	-	7
Granuloma formation	1	5
Tetanus	-	1
<b>Total</b>	<b>100</b>	<b>100</b>

Fifty percent of the UK group had had their ears pierced at the hairdresser's, the other 50% were done at the jeweller's, chemist's or at home. In the Sudanese group, 77% had had their ears pierced at home,

20% in either health centres or hospitals and only 3% were done at the jeweller's.

Spring-loaded gun was used in all those who had had their ears pierced in the high street shops in the UK and in Sudan. However, different instruments such as injection needles, studs, and sewing needles were used at home in both communities. The majority of children in both groups (80%) wore gold earrings, nickel (15%), silver and plastic earrings (5%) were also used. Complications encountered in both groups are listed in Table 2.

Seventy percent of the UK group had no problems following the ear piercing compared to 50% of the Sudanese group. Local inflammation and contact dermatitis to nickel were the commonest complications in both groups. Other problems reported were deformed ear lobule and embedded earrings. Keloid and granulomata were seen more in the Sudanese children than the UK children. There was one case of tetanus in the Sudanese group following ear piercing in the first week of life.

The reasons given by British and Sudanese parents for piercing the ears are listed in Table 3.

**Table 3:** Reasons for ear piercing

Reason for ear piercing	British children (%)	Sudanese children (%)
She wants it done	30	-
Mothers like them	18	-
Gift	12	5
They look nice	11	60
Don't know	11	5
She is a girl	10	30
Fashion	5	-
Family tradition	3	-
<b>Total</b>	<b>100</b>	<b>100</b>

## DISCUSSION

Ear piercing is a very old procedure and is practiced everywhere in the world. There is

limited information on epidemiological studies in both Sudan and Britain. Although 12% of the British children were boys, we did not see any Sudanese boy with pierced ears. Ear piercing is done at an early age in both communities and in Sudanese children even before immunization. In Sudanese culture, the practice is thought of as cosmetic for females only.

In both countries, the ears are pierced mostly by non-medical staff. However, it is done mainly at home in the Sudan and in the high street shops in Britain.

Spring-loaded gun is the instrument most frequently used by the department stores. It is more hygienic and the rate of infection is less than other techniques. This method is not common in Sudan. Most of the ear piercing performed in Sudan (77%) is done at home by non-professional people, hence the higher rate of infective complications (23%).

The Sudanese group (50%) reported a high rate of complications. Similar high rates of complications were reported by Dickey and Cortese in their study of American girls.<sup>18</sup>

Dermatitis from nickel is the second most common complication seen in our study and the Dickey and Cortese study.<sup>18</sup> The use of non-plated non-allergenic materials is likely to prevent this kind of complication.

Keloids were not seen in the UK children but in the Sudanese children because of obvious racial differences. Keloids present at a rather later age and they usually present to the general or ENT surgeon.

This study revealed that children in the UK and Sudan have their ears pierced by their friends or relatives at or before the school age. HIV and hepatitis remain a real danger if the same needle is used more than once for different children.

The reasons given for ear piercing by parents in both communities were not convincing. In Sudan, mothers should be

advised to delay the procedure until the babies have been immunized against tetanus.

Health authorities in the UK have made recommendations and given guidelines to be followed by the department stores which do ear piercing that would make the procedure more hygienic. Similar measures should be taken by Sudanese health authorities.

## **CONCLUSION AND RECOMMENDATIONS**

Ear piercing in both communities is performed at a very early age. This procedure is not without complications and the medical profession should give advice on making the practice as safe as possible. Earrings selected should be of non-allergenic material. Regular application of antiseptic to the site should be encouraged. The community should be made aware of the hazards and complications of ear piercing. If people are made aware of these complications and guided to follow certain rules, the practice may continue. Health authorities in Sudan should formulate guidelines for safe hygienic practice for those involved in ear piercing to ensure fewer complications.

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