

# Perils of pinna piercing and pseudomonas perichondritis

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It has become fashionable for younger people to wear ear rings through the cartilage of the pinna rather than through the earlobe. This is a case of pseudomonas perichondritis related to the procedure of high ear piercing. This complication can lead to considerable cosmetic deformity.



Figure 1. Pierced hole in pinna



Figure 2. Cosmetic deformity

## Discussion

Ear piercing through the cartilage of the pinna is becoming more popular and, as a result, complications from the procedure are more commonly seen in general practice and emergency departments. It has

been reported that 29% of earlobe piercings suffer minor complications and up to 1% have major complications.<sup>1</sup> Infection is a common complication with most being successfully treated with antibiotics covering gram positive organisms.<sup>2,3</sup> High ear piercing may result in increased risk of

## Case history

A 49 year old woman had her ears pierced using a spring-loaded gun in a shopping mall. Both her ears were pierced through the fatty part of the ear lobe and through the cartilage in the pinna. After two days, she presented to her general practitioner with an inflamed left ear. She was prescribed amoxicillin with clavulanic acid and after 48 hours cephalexin was added, as there had been no improvement. Her earring was also removed at the time.

She presented to the emergency department 14 days after the initial ear piercing with persistent symptoms of pain and swelling. On examination, she was afebrile, her ear was purple in colour, indurated with no fluctuation or discharge and extremely tender to touch. The swelling was so severe that the grooves of the pinna were obliterated. The white cell count was normal. She demonstrated no response to 10 days of ambulatory intravenous cephalosporins.

One month after the initial ear piercing, her ear started to discharge spontaneously through the pierced hole in the pinna (Figure 1). Culture of the discharge revealed *Pseudomonas aeruginosa*. Ciprofloxacin was commenced and within two days there was clinical improvement. There is persistent cosmetic deformity two months after the initial ear piercing (Figure 2) and she is currently under review by an ENT specialist.

infection of the cartilage and this can result in permanent deformity of the pinna.

Infection of the pinna can result in chondritis and may need surgical management and intravenous antibiotics. *Staphylococcus aureus* and *Streptococcus* are the most common types noted.<sup>4</sup> Previous reported cases have required surgical drainage and removal of cartilage and have resulted in cosmetic deformity.<sup>5-7</sup> Other complications of ear piercing include haematoma, bleeding, oedema, septicaemia (from infection), embedded studs, cysts, disfiguring keloid formation, dermatitis and sarcoid tissue formation.<sup>1</sup>

Currently, the practice of ear piercing is mainly performed by hairdressers, jewellers, beauticians, and sometimes health care workers but this practice remains uncontrolled. Surprisingly, only one litigation case has been identified after a comprehensive search and in that particular case, the jeweller was found not to be negligent as he was not bound to take the same precautions as a surgeon.<sup>8</sup> There is a general lack of knowledge regarding possible serious complications, which raises the important issue of consent when these procedures are carried out. This is especially so in very young children, who have their ears pierced according to parental wishes. The issue of informed consent is not mentioned in the latest Public Health (Skin Penetration) Regulation.<sup>9</sup>

## Conclusion

Although major complications are still rare given the number of ear piercings performed, when infection occurs the possible resulting cosmetic deformity can be significant. General practitioners and emergency departments need to be aware of the importance of early recognition of infection and referral for appropriate antibiotic and surgical treatment. Emergency departments and ambulatory care units need to recognise the possibility of *pseudomonas perichondritis*, especially if a patient is slow to respond to broad spectrum gram positive cover.

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