Treatment of an earlobe keloid

Finding the evidence

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Case history

L F, a 14 year old girl of South Pacific Island descent was concerned about the cosmetic appearance of a mass on her right earlobe (Figure 1). It had appeared three months previously after the earlobe was pierced. On its posterior surface was a pedunculated, spherical lesion approximately 7 mm in diameter. A very small nodule of fibrous tissue was present on the anterior aspect over the pierced site. I was not sure what it was, and accordingly excised it. I was horrified to read the histology report: it was a keloid. I looked it up in my textbook.

Textbook description

Keloids arise from the connective tissue elements of the dermis. By definition they grow beyond the margins of the original injury or scar and may grow to a large size. They frequently occur in the head and neck of dark skinned individuals.[1]

My concern now was that I may have made matters worse. Was she likely to develop an even larger keloid now? At our weekly evidence based practice meeting we decided to undertake an electronic search.

Electronic literature search

I was looking for an intervention that would reduce the recurrence rate of keloid in the surgical scar. Therefore I searched first in the Cochrane library. My search term was simply 'KELOID'.

I received 46 'hits', and I was able to quickly scan through the abstracts. The two systematic reviews were obviously not relevant, but there were 44 trials in the Controlled Trials Register section of the library. Ideally we would have found a trial that compared any intervention with control. There were none. But the most helpful article was a randomised controlled trial.[1] I obtained the full text article from the library. This compared postoperative corticosteroid injections and radiation therapy in the prevention of earlobe keloid recurrence. The study noted that surgical excision alone with no other intervention resulted in an 80% recurrence rate.

Corticosteroid injections consisted of 0.4 cc of triamcinolone acetate 40 mg/cc injected into the wound edges immediately after wound closure and on days seven, 21 and 35. Injections were given using a tuberculin syringe and a 30 gauge needle. Of the 12 patients randomised to receive corticosteroid injections there were four recurrences.

The radiotherapy arm patients received a single dose. This resulted in only two recurrences (not significantly different from the corticosteroid group, 12.5% versus 33%). A minimum of 12 months follow up was required for inclusion in the study. In the steroid injection group only four patients completed the full course of four injections, five had three injections, two had two injections and one patient had just one injection. All the patients in the radiotherapy arm received the single dose. Median follow up for both groups was 18 months with median time to recurrence of keloid being 17 months.

Figure 1. Keloid

How my management was altered

We decided that corticosteroid injections were the most practical treatment modality (radiotherapy being available only at an inconvenient distance, and concern about potentially dangerous treatment for a cosmetic problem in such a young person). Compliance was not likely to be a problem. After discussing the pros and cons, L F agreed, and commenced the corticosteroid injections. These occurred on days seven, 14, and 28 postoperatively. To this point, four months after the original excision, there is no keloid recurrence and no adverse effects with the corticosteroid injections.

Discussion

Electronic literature searching and using the principles of evidence based practice is helpful for finding treatments not well evaluated in textbooks. We felt much more confident we were offering the best treatment for our patient.

References

1. Sclafini A P. Prevention of earlobe keloid recurrence with postoperative corticosteroid injections versus radiation therapy. Dermatologic Surgery 1996; 22:569–574.