

A case of the giant pierced keloid that allowed us to infer
the direction of extension of the earlobe keloid

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We recently experienced one of the largest reported earlobe keloids in an Asian patient. The patient was a 68-year-old woman who underwent ear piercing around the age of 48 years. Six months after the piercing, she noticed masses in her earlobes. Over time, these lesions spread to the temporal regions. These keloids were removed surgically and the resection site underwent 10 Gy electron beam radiotherapy. While metal allergic reactions are the main causes of earlobe keloids, they are unlikely to be the cause in this case because the lesions arose after 6 months. It is more likely that these keloids were caused by folding of the auricular cartilage on the pillow during the nightly sleep: this placed mechanical tension on the pierce holes, which induced chronic inflammation and the resultant abnormal growth of the scars. This is evidenced by the fact that the keloids extended in the predominant direction of skin tension during sleep. This suggests strongly that mechanical tension can also contribute greatly to the formation and progression of earlobe keloids.