

## Piercing: Ocular complications?

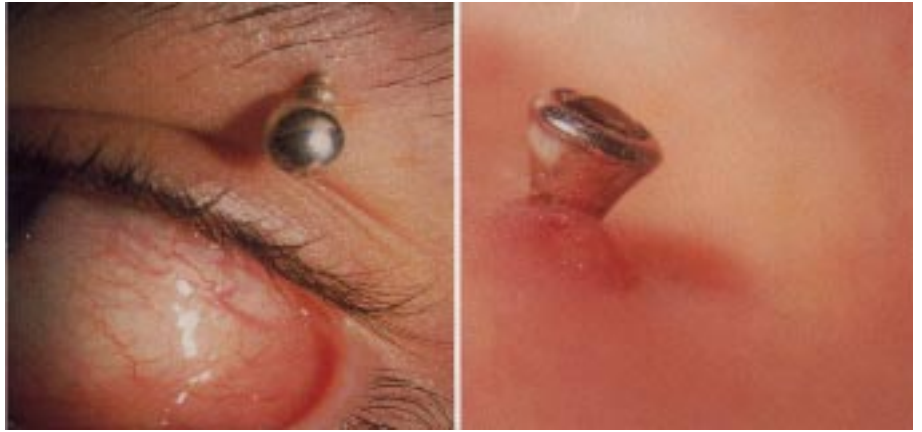
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Since 1991, nickel has been prohibited in spectacles in Denmark in order to prevent the very frequent occurrence of nickel allergy. Nevertheless, one encounters many young people of either sex with ear-rings made of cheap metals containing nickel, cobalt, copper, and iron.

“Piercing” means perforation for the permanent wearing of metal rings and pins.

At the “Health Fair” in Forum, Copenhagen, in October 1998, I counted 18.9% with pierced ears and 0.4% with a pierced nose, among 1,119 visitors.



Piercing pin under the supercilium (H-W Roth) (left). Nose piercing pin with pus secretion by the same Staph. and Pseudomonas in the conjunctiva and on the eyelid (H-W Roth) (right).

Within only 24 months, Hans-Walther Roth, Institut für Medizinische Kontaktlinseoptik in Ulm, Germany, has treated 28 patients with a suspected or certain complication to piercing. These can be divided into four types:

(1) *Direct trauma* (6 cases): Severe hemorrhage in the eyelids, paresis of the levator palpebrae with ptosis for

several weeks, perforation of the upper eyelid with a superficial scleral trauma related to piercing under the supercilium.

(2) *Bacterial infection* for at least 3-4 weeks (8 cases), including 5 patients with soft contact lenses in whom the same bacterium was found in the facial piercing wound and on the contact lens. One suffered a permanent loss of vision (keratitis, paracentral macula).

Two cases of piercing in the wing of the nose and 2 in the upper eyelid contracted therapy-resistant uveitis 8-11 months later, being eventually cured by removal of the piercing pin.

(3) *Metal allergy* occurred in 10 cases, for instance in the eyelid or the conjunctiva despite a great distance from the piercing site.

(4) *Toxic metallosis* (4 cases): Keratopathy in which traces of ionized metal in the soft contact lens were identified by spectrography.

The metal is dissolved by perspiration in the puncture canal and can be transported from the face to the eye by blood and lymph.



*Therapy:* Removal of the piercing ring, pin, etc., including removal of remnants in the wound by probing.

Roth now has treated a total of about 200 cases (2).

### Discussion

The assertion of uveitis caused by piercing reminds me of the focal theory which is probably by now generally abandoned. Even so, the possibility is interesting and should be kept in mind.

Nickel is retinotoxic (3) just like copper and iron. Theoretically, facial

piercing can cause death by thrombosis of the cavernous sinus (1). Nasal piercing in a young London female resulted in thrombosis. She survived, but with a facial paralysis (2). A piercing ring in the tongue can result in paresis.

Nickel eczema can occur, for instance on hands and feet, even though the place of piercing is far away, for instance in nose, eyelid, ear lobe, umbilicus or genitals.

My small piercing statistic from Copenhagen presents only minimum figures, as the latter body regions were

not investigated and because small pins may be overlooked, although I tried to get very close to the observed persons.

The danger of eye complications increases by piercing in the facial region, by use of cheap metal, and by unprofessional operation, for instance at discoteques (AIDS?).

### References

1. Roth H-W. Augenschäden durch Piercing. *Der Augenspiegel* 1998; 6: 49-53.
2. Roth H-W. Personal communication. September 29, 1998.
3. Okabe. *Acta Soc Ophth Jap* 1931; 35: 1092.



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