

BODY PIERCING AND TATTOOS

Body piercing and tattooing are gaining popularity. Also increasing are the resultant medical complications. Several articles have also recently emerged in the medical literature addressing problems with body piercing and tattooing. Recently, Outpatient Cytopathology Center has seen several patients with complications related to body piercing.

Body Piercing

A recent article in the *Johnson City Press* describes a “poke and stick” party where friends actually do the piercing or tattooing instead of going to a professional. These parties attest to the rising popularity of body piercing among college and high school students.

More significantly, there are numerous websites available written by lay individuals discussing the merits of piercing, suggestions of what jewelry would look good in that particular body site, and even offering suggestions people on how to care for the area when problems arise. Little do these websites know what they are getting into.

These websites do not typically discuss the serious complications that can occur. What kind of complications can arise? There can be local side effects or systemic manifestations.

Local Complications

Prolonged healing may be due to friction or pressure against clothing, or having the piercer place the jewelry at an adequate depth or angle, or wearing inappropriate jewelry for that site. A localized infection can develop rapidly into a serious cellulites, and regional adenopathy can be present. Occasionally, exuberant granulation tissue may

be seen around the pierced site. Piercings in moist sites are particularly vulnerable. This is characterized by reddish, moist granulation tissue. Some individuals develop hypertrophic scar tissue while other may have keloids. Websites dedicated to piercers suggest they try steroid injections, or silicone gel sheets applied to the scar, to shrink them.

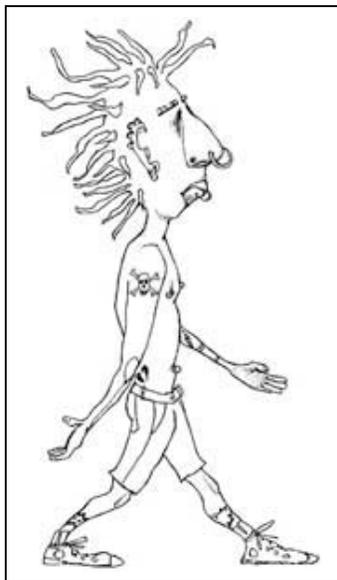
Metal sensitivities are usually primarily involve nickel, copper and chromium. Gold, silver, and zinc sensitivities can also occur. White gold often causes more adverse reactions than yellow gold because of the high amount of nickel in the metal to give its white color. Usually the metal sensitivity manifests as contact dermatitis. This can range from mild pruritus to marked erythema, edema and bulla formation. The metals can

produce non-caseating granulomas imitating sarcoidosis and pseudolymphomas.

Nipple rings are becoming more common; also rising are the complications. In one study of ten individuals, mastitis was frequently seen, appearing from 2-52 weeks after piercing. The average time was approximately 20 weeks after the procedure.

At Outpatient Cytopathology Center, we treated one particular patient, a 22-year-old woman, with a nipple ring for 5 months. She presented with a subareolar mass from which 5 ml of purulent material was aspirated on FNA. Cultures grew *Bacteroides bivus*. Other organisms that

have been documented in the literature from various body piercing sites include *Pseudomonas aeruginosa* and *Staphylococcus aureus*.



Another study discussed 186 piercings from 118 individuals with ear piercings performed at a jewelry kiosk in Oregon. All had the helix portion of the ear pierced. Four individuals needed hospitalizations for infection: *Pseudomonas aeruginosa* was isolated on culture. Most had some form of resultant ear deformity. In this particular study, the contaminating isolates were recovered from a disinfectant bottle used during the procedure.

Systemic Complications

Serious systemic complications include endocarditis, prosthesis infection, foreign body reaction due to metal sensitivity, hepatitis B, C, D, and G, HIV, and bacterial sepsis, syphilis, and even tetanus.

Potentially fatal complications are usually associated with intra-oral sites piercings, such as the uvula, tongue, cheek and lip. Reported complications on tongue piercing include hemorrhage, airway compromise and anaerobic infections. Dental chipping and fracture of teeth from jewelry, gingival ulceration, recession of gingival tissue and calculus buildup have been reported.

Tattoos

Tattooing faces a similar set of complications. A foreign body reaction or immune response can occur to the various pigments and metals used. Lymphadenopathy can develop from tattoos. Pigment has been seen in enlarged lymph nodes that mimic melanoma. If the

pathologist is not aware of a tattoo adjacent to the biopsy site, extra time is needed to work up the cause of the pigment and mistakes can be made. Another change seen in lymph nodes is dermatopathic lymphadenitis. This is a reactive process related to a local problem such as a skin rash or a tattoo.

If individuals have a mass associated with piercings or tattoos, a FNA is an easy, convenient, method of obtaining material for diagnosis and for culture. Many states are producing videos, offering brochures or developing websites to warn people about the risk of infections, blood-borne diseases and disfigurement related to these procedures. Several recent studies have mentioned that the tip of the iceberg has just been hit concerning the complications of piercing and tattooing.

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COMPANY PROFILE

OUTPATIENT CYTOPATHOLOGY CENTER (OCC) is an independent pathology practice that specializes in performing and interpreting fine needle aspiration biopsy specimens. OCC is accredited by the College of American Pathologists. The practice was established in 1991 in Johnson City, Tennessee. Patients may be referred for aspiration biopsy of most palpable masses as well as for aspiration of non-palpable breast and thyroid masses that can be visualized by ultrasound. OCC is a participating provider with most insurance plans. Our referral area includes patients from Virginia, West Virginia, North Carolina, South Carolina and Georgia.

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