



A48 Skeletal Markers of Gender Reassignment

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After attending this presentation, attendees will recognize potential skeletal indicators of male-to-female gender transition and will be aware of some traits that should be regarded with caution when transgenderism is suspected.

This presentation will impact the forensic science community by providing a case study for sex assessment in male-to-female transgender individuals.

In 1988, a decomposing human body was found in a wooded area of central Florida. The remains were found in association with several articles of female clothing, including a denim skirt, blouse, and pantyhose. Two silicone breast implants were also found in close association with the remains. A limited autopsy was performed in which it was noted that the pelvis was of “female type.” The body was decomposed to the extent that external genitalia were not present and the absence of a uterus was attributed to a probable hysterectomy. The case was referred to an anthropologist, who noted the presence of preauricular sulci and dorsal pitting which was interpreted as evidence of childbirth. The anthropologist’s report listed the decedent as female. During a review of cold cases for submission of DNA samples, the case was re-evaluated. The skeletal morphology strongly suggested that the decedent was a male. The female clothing, breast implants, cosmetic rhinoplasty, and pits of parturition were interpreted as evidence for gender reassignment surgery and normal sequelae associated with estrogen supplementation and/or androgen suppression treatment. A new anthropology report listing the sex of the decedent as male was submitted with bone samples to the University of North Texas Center for Human Identification, who were able to sequence mitochondrial DNA for the decedent. The DNA sample confirmed that the decedent was born a male.

The medical literature addresses possible skeletal effects related to the medical and surgical treatment of gender dysphoria, primarily related to bone density; however, little is known about the expression of those effects in dry bone. This case presents preliminary information about skeletal changes and contextual evidence that may alert an anthropologist that the decedent is male-to-female transgendered, aiding greatly in the investigation of the death. This case also demonstrates how new scientific findings can change interpretations over time. In this case, after the initial anthropological analysis, research was published related to the production of the hormone relaxin in males; this research was helpful in conducting the second examination of the remains. This case exemplifies the need for the field to evolve in accordance with changing demographic trends, as well as with new research that may not be entirely confined to biological anthropology.

Transgender, Parturition Pits, Sex Assessment