



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

FOREIGN BODY GRANULOMA AND TEMPORAL ARTERY STENOSIS SECONDARY TO GOLD THREAD FACELIFT AND FACIAL INJECTION OF POLYACRYLAMIDE HYDROGEL

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Background: Injectable fillers are used in plastic surgery to treat wrinkles, scars and defects. These products are classified into resorbable or non-resorbable types.

Polyacrylamide hydrogel (PAAG) is a non-resorbable synthetic material developed in the 1980s. PAAG became popular for aesthetic purposes in China and Europe owing to its high biocompatibility and safety profile. However, PAAG-induced complications including edema, bruising, infections, and nodules have been reported since 2000.

Observation: A 52-year-old Chinese woman noticed nodules on her temple and forehead in May 2017. She was examined at our hospital in August 2017. At the time of her first visit to our hospital, we observed a tender, pulsating elastic nodule and 2 soft nodules on her temple and forehead. Computed tomography showed bizarre, numerous punctate and linear high-density fragments distributed over her face. A soft nodule resected from her temple showed encapsulated gelatinous material with a fine gold thread. On histopathological examination, the gel was observed to be a subcutaneous basophilic homogeneous deposit with macrophage and giant cell infiltration at its outer rim. Histopathological examination of the pulsating elastic nodule showed thickening of the arterial wall with a basophilic homogeneous deposit in the wall in addition to histiocytic infiltration. She could not provide details regarding the filler; thus, gel analysis was performed. Further analyses using Fourier-transform infrared spectroscopy confirmed the deposition of PAAG in the gel, and an electron probe microanalyzer confirmed that the fine golden thread consisted of pure gold.

Key message: We report a rare case of PAAG-induced foreign body granulomas with a gold thread at their core and temporal artery stenosis associated with the deposition of PAAG.

