

EP-076

이마에 발생한 다발성 골종: 내시경적  
치료 및 가드너 증후군 평가  
(Multiple Osteomas of the Forehead:  
Endoscopic Management and Evaluation for  
Gardner Syndrome)



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**Purpose:** Osteoma is a benign osteogenic tumor that commonly arises in the craniofacial skeleton, particularly the frontal bone. While solitary osteomas are relatively common, multiple craniofacial osteomas are uncommon and may raise suspicion for syndromic conditions such as Gardner syndrome. We report a case of multiple osteomas involving the forehead that were successfully treated using an endoscopic approach and highlight the clinical importance of evaluating potential syndromic associations.

**Methods:** A 48-year-old woman was referred from a local hospital with multiple palpable nodules on the forehead and scalp that had gradually increased in number over the previous year. The patient initially noticed a single lesion, followed by the development of additional nodules. Physical examination revealed multiple firm, non-tender bony nodules on the forehead (Fig. 1). Three-dimensional computed tomography demonstrated multiple well-defined bony protrusions arising from the frontal bone, consistent with osteomas (Fig. 2). Surgical excision was performed via a hairline incision using an endoscopic approach, allowing identification and removal of multiple bony lesions arising from the frontal bone.

**Results:** Multiple well-circumscribed bony nodules were successfully excised (Fig. 3). Histopathologic examination demonstrated mature lamellated bone with Haversian-like canals of variable sizes and shapes, consistent with osteoma (Fig. 4). Because multiple craniofacial osteomas can be associated with Gardner syndrome, further evaluation was performed. The patient had no family history of colorectal cancer, and colonoscopic examination revealed no evidence of colonic polyps. The postoperative course was uneventful.

**Conclusion:** Multiple osteomas of the forehead are uncommon and may be associated with syndromic conditions such as Gardner syndrome. Therefore, when multiple craniofacial osteomas are identified, appropriate clinical evaluation and systemic screening should be considered. Endoscopic excision through a hairline incision represents a safe and effective surgical option,

offering favorable cosmetic outcomes.



Fig. 1. Preoperative frontal photograph demonstrating multiple palpable bony nodules on the forehead (circles).



Fig. 2. Three-dimensional computed tomography demonstrating multiple well-defined bony protrusions arising from the frontal bone (arrows), consistent with osteomas.



Fig. 3. Gross specimens of multiple excised osteomas demonstrating multiple well-circumscribed bony nodules of varying sizes (surgical ruler shown for scale).

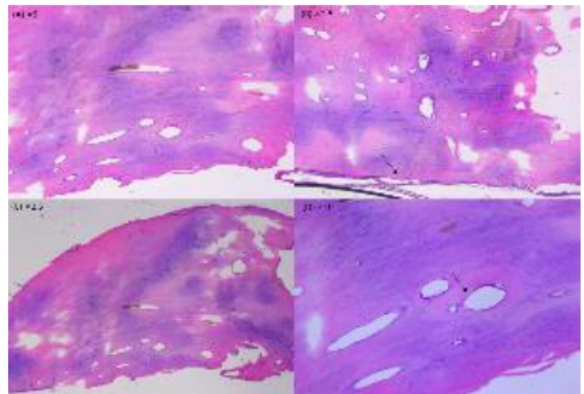


Fig. 4. Histopathologic findings of the excised lesions demonstrating mature lamellated bone with Haversian systems (arrows), consistent with osteoma (H&E stain; original magnification  $\times 2.5\text{--}\times 10$ ).