

## 学会記事

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En block resection of the temporomandibular joint is relatively difficult because it is located at inferior aspect of the middle cranial fossa of the temporal bone. Technique for dissection are limited by the need to avoid undue damage to the body surface of fresh cadavers for pathological examination. In our presentation, we will introduce technique that we use for dissection of the temporomandibular joint in human fresh cadavers at our institution. The techniques will be discussed with respect to their application for various study method.

13. Studies on distribution and characterization of proteoglycans (PGs) in porcine Temporomandibular Joint (TMJ)

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Distribution of porcine TMJ PGs are different composition in TMJ Disk, retrodiskal tissue and superficial layer of condyle PGs. In this studies, Glycosaminoglycans were assayed by cellulose acetate membrane electrophoresis. The core proteins were assayed by western-blotting. A high molecular weight PG resembled the Aggrecan and two low molecular weight PGs resembled Biglycan and Decorin.

14. Thermal analysis of decomposition of collagen at high temperature

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It is well known that denaturing temperature of collagen has been extremely studied. We found that at the higher temperature range collagen decomposed and showed a variety of decomposition pattern in the thermal analysis curves. Possibility of applying thermal analysis technique for study of collagen is discussed.

15. Bone formation induced by the implantation of bone marrow cell collagen matrix complexes in vivo.

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The purpose of this study is to induce bone by the implantation of bone marrow cell-collagen matrix. Bone marrow cells differentiated to osteoblasts on collagen matrix. When cell-collagen complexed were implanted to nude mice, bone was formed and it contained bone marrow.

16. Immunohistochemical localization of TGF- $\beta$ 1 in the process of BMP induced heterotopic osteogenesis

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Using ddY mice, immunohistochemical localizations of TGF- $\beta$ 1 in the early phase of BMP induced heterotopic osteogenesis were examined. In one week specimen, TGF- $\beta$ 1 was detected in chondrocytes and the matrices, and in two weeks appeared in osteoblasts and the matrices. In three weeks case, the peptide was shown in osteoblasts and osteocytes, and newly formed bone marrow tissues. The positive reaction remained only in a part of the matrices in four weeks specimen.

17. Expression of Bone Matrix Proteins during Ectopic

Bone Formation Induced by Bone Morphogenetic Protein  
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mRNA expression of bone matrix proteins was investigated during the formation of ectopic bone induced by bone morphogenetic protein. Partially purified bovine BMP was implanted into the dorsal subcutaneous tissues of Wistar strain rats. The specimens were removed at 1, 2, 3, 5, 7, 10, and 14 days after implantation. Total RNA was extracted from all specimens, and mRNAs of osteopontin, osteonectin, osteocalcin, and type I collagen were evaluated by Northern blotting. The gene expression of bone matrix proteins was found to be in accordance with the bone formation process.

18. Electron microscopic study of ectopic bone formation induced by BMP

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Partially purified bovine bone morphogenetic protein (BMP) and type collagen as carrier were combined and lyophilized. The freeze-dried pellets were implanted into the dorsal subcutaneous tissues of 3 week old Wistar strain rats. The specimens were removed at various periods and embedded in Epon 812. The non-decalcified specimens were observed by elec-