Abstract:
Aim: brief review of literature on osteochondroma and to present a case involving surgical removal and replacement of part of condyle and mandibular angle.

Background: osteochondroma is the most common tumor of bones, but relatively uncommon in the jaws. This benign cartilage-capped growth is usually discovered incidentally on radiographic examination or on palpation.

Report: 29-year-old woman with osteochondroma of the mandibular condyle. Surgical treatment was tumor resection, grafting & reshaping of the mandibular angle & ramus.

Summary: If the tumor involves only a limited area of the condylar surface, preservation of the condyle and reshaping should be done. Reasons for not taking a conservative approach are the possibilities of malignancy and the risk or recurrence.

Introduction:
1. Osteochondroma/solitary osteocartilaginous exostosis is a cartilage-capped osseous projection
2. Most common tumor of bone
3. Relatively uncommon in jaws

Review of Literature
1. Vichow 1891: physeal cartilage becomes separated and grows transverse to the long axis of bone
2. Keith 1920: defect in the perichondral ring surrounding the physis is the cause
3. Muller: exostoses are produced by small nests of cartilage derived from the cambium layer of periosteum
4. Lichtenstein: periosteum has potential to develop osteoblasts and chodroblasts
5. Osteochondroma of the mandible occurs at the condyle or tip of the coronoid process
6. Accounts for 35.8% of benign bony tumors and for 8.5% of tumors overall
7. Malignant change is rare in solitary osteochondroma but does occur in 5% of multiple hereditary osteochondromatosis
8. It occurs in adolescents or young children, both sexes equally affected
9. Histological distinction between osteochondroma and chondrosarcoma can be difficult. High cellularity, pleomorphism and plump cells ➔ malignant lesion
10. Lesion usually discovered incidentally
11. Lateral open bite on the contralateral side and progressive facial asymmetry in most cases
12. Pain may precede or accompany facial asymmetry
13. Radiographic image: globular radiolucent, lobulated mass which distorts normal morphology, can be differentiated from the elongated condylar process seen in hyperplasia
14. Lesion may have a pedunculated stalk or sessile base
15. CT can help in lesions in the mandible and surrounding normal bone
16. Vezeau et al.: condylectomy is the surgical treatment of choice
17. Joint reconstruction: condylosplasty, discectomy, costochondral grafting
Case Report

Diagnosis
1. 29-year-old woman
2. Complaint of increasing facial asymmetry over a period of four years
3. Normal mouth opening
4. Mandible deviated 8mm to the right side
5. No associated pain
6. Increased length of left ascending ramus
7. Panoramic: mandibular asymmetry, enlargement of the left mandibular condyle
8. CT: large globular, mixed radiopaque/radiolucent condylar mass of the left TMJ
9. Scintigraphy: increased captivation in left condyle, no evidence of multiple osteochondromas

Treatment
1. EKG, chest radiography, urine and blood values within normal range
2. Tumor resection, grafting and reshaping of the mandibular angle and ramus were planned
3. Risdon approach to access ramus and condylar neck
4. Osteotomy carried out
5. Graft was prepared and fixed with #2 wires
6. Intermaxillary fixation for 2 weeks
7. Microscopic: cancellous bone with trabeculae of variable size. Cartilaginous inclusions were visible
8. 3 year follow up: patient presented good facial symmetry and stable occlusal relationship

Discussion
1. 42 cases affecting mandibular condyle reported in English language literature
2. Found in the fourth decade, mean age 38.5 years
3. Male: female 1.0:1.2
4. Symmetry(?) of face present in 83.3%, 52.3% pain was present, 30.9% mandibular hypomobility

Summary
1. If the tumor involves only a limited area, preservation & reshaping should be done
2. If possibility of malignancy or risk of occurrence, then carry out condylectomy

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<td>如果一個osteochondroma的病患發現下頜往右側偏的時候，請問病灶區在哪一邊？</td>
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答案(D) 出處: Oral & Maxillofacial Pathology, Saunders Second Edition, Neville Damm Allen Bouquot, pg 566