原文題目(出處)：	Does the presence of mandibular third molars increase the risk of angle fracture and simultaneously decrease the risk of condylar fracture?
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內文：

Abstract.

1. Previous studies ➔ mandibular third molars (M3s) increase the risk of mandibular angle fractures and decrease the risk of mandibular condylar fractures.
2. 700 patients with and without impacted M3s. ➔
    The results showed that
    a. patients with impacted M3s vs without impacted M3s ➔ by moderate trauma force ➔ lower risk , condylar fracture ➔ higher risk, angle fracture
    b. not be identified by high trauma force.
3. Patients with impacted M3s vs. without impacted M3s ➔ no matter how they were injured (assault, fall, motor vehicle accident, other). ➔ higher risk , angle fracture
4. When injured by assault or in a motor vehicle accident ➔ impacted M3s ➔ less likely to have a condylar fracture.
5. M3s ➔ dominant factor ➔ angle fracture + preventing condylar fracture.

Introduction

1. Retrospective studies ➔ with M3s vs.without impacted M3s. ➔ more at risk of mandibular angle fractures
2. Risk of fracture was also dependent on M3 position
3. With impacted M3s vs. without impacted M3s ➔ less condylar fracture
4. Position of M3s, injury mechanism and injury cause,

Patients and methods

1. January 1991 to April 2005, 902 patients were treated for mandible fractures at Peking University School and Hospital of Stomatology, Department of Oral and Maxillofacial Surgery.
2. Data collected included age, sex, injury cause (motor vehicle accident, assault, fall, other), position of M3s and fractures sites.
3. 202 patients aged 16 years or younger ➔ Excluded
4. The magnitude of trauma force
    low trauma force ➔ 1mandibular fracture site,
    moderate trauma force ➔ 2 mandibular fracture sites
    high trauma force ➔ 3 or more mandibular fracture sites.
5. To analyse the position ➔
    a. horizontal position(Class I, Class II and Class III)
    b. vertical position (Class A, Class B and Class C)
    c. absence of M3s ➔ Class 0

Table 1. Horizontal and vertical position of M3s

Horizontal	Amount of space available between ramus and second molar
Class I	Adequate space for eruption
Class II	Inadequate space for eruption
Class III	Third molar located partially or completely in ramus
Vertical	Relationship of third molar crown to second molar crown
Class A	Level at occlusal plane
Class B	Between the cemento-enamel junction of the second molar and occlusal plane
Class C	Below the cemento-enamel junction of the second molar
Class 0: no M3s.	

    d.   Class IA ➔ not impacted but fully erupted.

    e.   All remaining ➔impactions.

6. SPSS version 10.0 (means and standard deviation, x^2 test, Student's t-test, Data were considered significant with $P < 0.05$.)

Results

1. 700 patients with 1280 mandibular fractures.
2. Motor vehicle accident (the most common)➔ assault➔fall ➔ other
3. The most common fracture ➔bi-fracture ➔mono-fracture ➔multi-fracture
4. Observed most frequently ➔symphysis ➔ condyle ➔body ➔ angle ➔ ramus
5. Mandibular angle fractures ➔197 patients, 5 bilateral
6. Condylar fractures ➔ 300 patients, 112   bilateral
7. 22➔ condylar*1 + angle fracture*1➔8 both   same side.
8. 700 patients ,1400 mandibular halves➔ 302 (22%)   no M3s.
9. 1098 (78%) mandibular halves containing an M3,
    - a.horizontal position：Class I (525, 38%)➔ Class II (322, 23%) ➔ Class III (251, 18%).
    - b.vertical position：Class A (656, 47%)➔Class B (348, 25%) ➔Class C (94, 7%).
    - c.with impacted M3s ➔ younger , male

Table 2. Variables grouped by impacted M3s, mandibular angle and condylar fracture

Variable	Impacted M3s		Angle fracture		Condylar fracture	
	Absent ($n = 330$)	Present ($n = 370$)	Absent ($n = 504$)	Present ($n = 196$)	Absent ($n = 400$)	Present ($n = 300$)
Age (years)	35.1 ± 10.9	27.9 ± 9.5**	31.9 ± 10.8	29.7 ± 10.6*	30.8 ± 10.1	32.0 ± 11.6**
Sex						
Male	254	309	399	164	332	231
Female	76	61**	105	32*	68	69**

* $P > 0.05$.
** $P < 0.05$.

10. Without impacted M3s vs. with impacted M3s ($P < 0.05$). ➔ higher risk for condylar fractures,
11. With impacted M3s vs. without impacted M3s ➔ higher risk for angle fractures ($P < 0.05$).

Table 3. Relationship between impacted M3s and the risk of condylar and angle fracture

Impacted M3s	Condylar fracture			Angle fracture		
	Absent	Present	P	Absent	Present	P
Absent ($n = 330$)	163 (49%)	167 (51%)	0.000	285 (86%)	45 (14%)	0.000
Present ($n = 370$)	237 (64%)	133 (36%)		218 (59%)	152 (41%)	

Table 4. Relationship between M3 position and risk of condylar and angle fracture

M3s	Condylar fracture			Angle fracture		
	Absent	Present	P	Absent	Present (%)	P
Horizontal position						
Class 0 ($n = 302$)*	194 (64%)	108 (36%)	0.003	287 (95%)	15 (5%)	0.000
Class I ($n = 525$)	361 (71%)	164 (31%)		478 (91%)	47 (9%)	
Class II ($n = 322$)	247 (77%)	75 (23%)		223 (69%)	99 (31%)	
Class III ($n = 251$)	186 (74%)	65 (26%)		211 (84%)	40 (16%)	
Vertical position						
Class 0 ($n = 302$)*	194 (64%)	108 (36%)	0.003	287 (95%)	15 (5%)	0.000
Class A ($n = 656$)	462 (70%)	194 (30%)		569 (87%)	87 (13%)	
Class B ($n = 348$)	269 (77%)	79 (23%)		258 (74%)	90 (26%)	
Class C ($n = 94$)	63 (67%)	31 (33%)		85 (90%)	9 (10%)	

* Class 0: no M3s.

12. Horizontal position of impacted M3s, highest incidence ,

       angle fractures➔ Class II   ➔ Class III ➔ Class I ➔ Class 0.

       condylar fractures ➔Class 0 ➔ Class I ➔ Class III ➔ Class II

13. The highest incidence

       angle fractures ➔Class B ➔ Class A ➔ Class C➔ Class 0

       condylar fractures ➔Class 0 ➔ Class C➔ Class A➔ Class B

14. Impacted M3s ➔ lower risk of condylar fracture / higher risk of angle fracture

15. Without impacted M3s ➔moderate trauma force ➔higher risk of condylar fractures ➔ lower risk of angle fractures

16. With impacted M3s vs. without impacted M3s➔ low trauma force➔ higher risk of angle fracture

17. The difference was not statistically significant for condylar fracture

18. No matter how they were injured ➔ with impacted M3s ➔ higher risk of angle fracture than those without impacted M3s (P < 0.05).

Table 5. Relationship between impacted M3s and risk of condylar and angle fracture in terms of injury mechanism

Impacted M3s	Condylar fracture			Angle fracture		
	Absent	Present	P	Absent	Present	P
Low trauma force						
Absent ($n = 134$)	107 (80%)	27 (20%)	0.261	118 (88%)	16 (12%)	0.002
Present ($n = 134$)	114 (85%)	20 (15%)		98 (73%)	36 (27%)	
Moderate trauma force						
Absent ($n = 119$)	53 (45%)	66 (56%)	0.000	97 (82%)	22 (19%)	0.000
Present ($n = 182$)	120 (66%)	62 (34%)		75 (41%)	07 (59%)	
High trauma force						
Absent ($n = 77$)	3 (4%)	74 (96%)	0.982	70 (91%)	7 (9%)	0.192
Present ($n = 54$)	3 (6%)	51 (94%)		45 (83%)	9 (17%)	

19. Assault or motor vehicle accident➔ with impacted M3s ➔less condylar fracture than those without impacted M3s (P < 0.05)

Table 6. Relationship between impacted M3s and risk of injury causes

Impacted M3s	Condylar fracture		
	Absent	Present	P
Assault			
Absent (84)	54 (64%)	30 (36%)	0.008
Present (85)	70 (82%)	15 (18%)	
Fall			
Absent (67)	23 (34%)	44 (66%)	0.482
Present (62)	25 (40%)	37 (60%)	
Vehicle			
Absent (143)	63 (44%)	80 (56%)	0.008
Present (162)	96 (59%)	66 (41%)	

Discussion

1. The resistance to angle fractures is decreased by the presence of impacted M3s

       The highest risk ➔ Class II and Class B

       The lowest risk ➔ without M3s .

2. Angle fractures ➔tension at the superior border ➔ compression at the inferior border.

3. Impacted M3s disrupting the cortical bridge of the superior border cause an inherent weakness in the mandibular angle. ➜why Class II and Class B positions➜rather than Class III and Class C with the superior border intact.
4. KOBER et al. ➜ angle was weakened by incompletely erupted M3s,➜condylar fracture would decrease➜ forces would be dissipated by the angle fracture.
5. Angle was intact (with no M3s or fully erupted M3s)➜more impact forces would transmit to the condyle ➜ fracture
6. The severity of injury was the primary factor resulting in multiple fractures, not the presence or absence of M3s.
7. A single fracture(low traumatic force)➜,impacted M3s increased the risk of angle fracture.
8. M3s ➜ in the mono-fracture group.   ➜ no influence on condylar fractures
9. This could be explained by the low force of injury: a fracture would occur at the condyle, due to its intrinsic weakness, rather than the angle with M3s.
10. Angle fracture ➜more affected by impacted M3s than that of condylar fracture.

題號	題目
1	**Which one is not the clinical features of exctodermal dysplasia?** **(A) female predominance** **(B) Oligodintia** **(C) Teeth maekedly reduced in number** **(D) The incisors usuallt appear tapered**
答案(A)	出處：**Oral and Maxillofacila pathology p.644** **male predominance is usually seen(X-linked inherance)**
題號	題目
2	**Which one is not correct about Warthin tumor** **(A) It's the most common benign parotid gland tumor** **(B) It usually occurs metachronous** **(C) It has been associated with cigarette smoking** **(D) It is also named papillary cystandeoma lymphomatosum**
答案(A)	出處：**Oral and Maxillofacila pathology p.415** **It's the 2nd common benign parotid gland tumor**