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內文：

### Introduction

- Temporo-mandibular joint Ankylosis 在目前的印度中部是一個很常見的疾病, 先有 maxillofacial trauma, 接著因為延遲的診斷與治療而導致
- 因為城市化的發展與人口遷移, 所以交通的問題變成導致 facial trauma 的一個重要原因, 車禍占了 facial trauma 原因之中最大的比例
- Temporo-mandibular joint Ankylosis 會因為 iatrogenic delay 的原因而更加惡化, 甚至最終導致 jaw lock due to ankylosis
- 這篇研究主要的目的是藉由追蹤並分析每個 facial trauma 的病人, 根據每個 Case 的 outcome 與 background 來比較, 藉此來了解什麼情況之下容易發生 iatrogenic delay (ID), 探討其中原因

### Methods and Materials

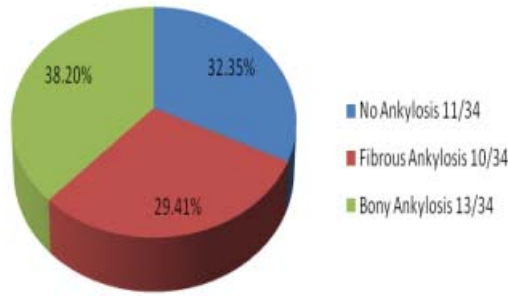
- Iatrogenic delay definition :  
The time calculated from primary visit to doctor to the final treatment being given at tertiary specialty hospital.
- 238 patients with facial trauma

Anatomical region	Number of patients out of 238	Percentage (%)	Cause Reported in Files
Mandible all areas	94	39.4	Two wheeler 76; four wheeler 18; Fights (assault) 06; Domestic fall 02 with Total = 111 patients. Alcohol used by 35% of above patients
Mandible condylar region	34	14.2	
Le fort I	41	13.8	Two wheeler 74; Four wheeler 40; Fights (assault) 13; Domestic fall nil with Total = 127 patients. Alcohol used by 39% of the above patients
Le fort II and III	39	16.3	
Complex fractures not classifiable	30	12.6	

- A detailed follow up of only 72 was possible and only 34 cases were finally included which fit into our study.

### Results

- Of total 34 case, 11 patients without ankylosis, 10 patients with fibrosis ankylosis, 13 patients with bony ankylosis.



**Discussion**

- TMJ ankylosis was primarily attributed to delay of surgical expertise and prolonged non-usage of the joint due to pain after injury.
- 34 patients divided into 3 group according to outcome
  - ✧ No ankylosis : 11 patients
  - ✧ Fibrous ankylosis : 10 patients
  - ✧ Bony ankylosis : 13 patients
- 34 patients divided into 2 group ,rural and urban
  - ✧ Rural : 16 patients
  - ✧ Urban : 18 patients
- The iatrogenic delay total / per doctor
  - ✧ 19.6 months / 3.67 months in rural areas
  - ✧ 6.16 months / 2.94 months in urban areas

Rural	Diagnostic delay (months)	No of doctors seen	delay per doctor	Urban	Diagnostic delay in months	No of doctors seen	Delay per doctor
R	26	7	3.71	U	4	2	2.00
R	12	6	2.00	U	8	2	4.00
R	18	5	3.60	U	5	3	1.67
R	19	4	4.75	U	3	2	1.50
R	16	4	4.00	U	9	2	4.50
R	22	4	5.50	U	8	2	4.00
R	21	7	3.00	U	5	3	1.67
R	14	4	3.50	U	4	2	2.00
R	16	4	4.00	U	5	3	1.67
R	14	4	3.50	U	9	2	4.5
R	19	4	4.75	U	5	3	1.67
R	26	7	3.71	U	4	2	2.00
R	32	7	4.57	U	9	3	3.00
R	17	5	3.40	U	8	2	4.00
R	19	8	2.38	U	5	3	1.67
R	32	7	4.57	U	9	2	4.5
				U	5	3	1.67
				U	4	2	2.00
<b>Average delay per doctor / Rural</b>			<b>3.67</b>	<b>Average delay per doctor urban</b>			<b>2.94</b>
<b>Average delay of patients rural</b>	<b>19.6 months</b>		<b>Average delay per doctor in rural</b>	<b>Average delay of patients Urban</b>	<b>6.16 months</b>		<b>Average delay per doctor in urban</b>

- Mean iatrogenic delay of the patients who
  - ✧ No ankylosis group is 1.85 months
  - ✧ Fibrous ankylosis group is 2.94 months
  - ✧ Bony ankylosis group is 19.6 months.

Type of Presentation	Rural	Urban	Iatrogenic Delay	Remark
No Ankylosis	1	10	1.84 months	Least delay showed no ankylosis
Fibrous ankylosis	4	6	2.94 months	3 months of delay showed fibrous ankylosis
Bony ankylosis	12	1	19.6 months	19 months of delay confirmed bony ankylosis

### Conclusion

- 不同於已發展國家的 maxillofacial injuries 的原因主要來至於 assault(襲擊), Road traffic accident 在印度仍然是 maxillofacial injuries 最主要的原因
- 對於 in growing age joints 的 trauma 完全忽略或是沒有妥善的處理是 TMJ ankylosis 發生的主要原因
- 印度鄉下地區的病人常見會有診斷或治療 delay 的原因有貧窮, 缺乏警覺, 文盲, 因此對於這方面的健康教育觀念是必要的
- 在遇到 facial trauma 時提高對於 TMJ ankylosis 的警覺性並且提供即時的專業評估與治療, 如此一來可以有效減低印度鄉鎮的 patient 的 TMJ ankylosis 的發生率

題號	題目
1	關於Ankylosis，下列何者敘述錯誤？ (A) 最常見的病因是 trauma，尤其是 condylar fracture (B) 病患出現張口受限、下顎患側偏移、患側向對側做側方運動時運動量減少 (C) 一般而言，bony ankylosis 比 fibrous ankylosis 的張口度大 (D) bony fusion 處幾乎位於關節的 lateral part，且呈現 osteosclerosis，並可見 radiolucent zone
答案(C)	出處：當代口腔顎面外科 p.800
題號	題目
2	關於TMD，下列何者敘述錯誤？ (A) Anterior disc displacement with reduction 的患者，在張口與閉口時會出現聲響 (B) Anterior disc displacement without reduction 的患者，在張口與閉口時不會出現聲響 (C) Anterior disc displacement without reduction 的患者，下顎運動時會偏向對側 (D) 風濕性關節炎會造成 TMD
答案(C)	出處：當代口腔顎面外科 p.798~800