



## VERTEBRAL ANOMALIES IN CHILDREN WITH CLEFT LIP AND PALATE

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**SUMMARY:** 40 patients with cleft lip and palate were radiologically investigated for anomalies to the spine. 7 patients were found to have spine anomalies in this group and the commonest anomaly of bony fusion of cervical vertebrae was found in 3 patients.

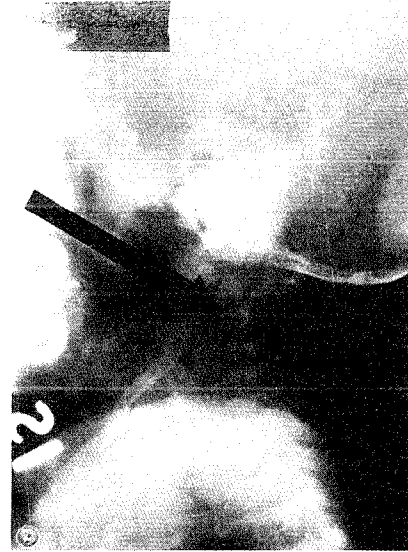
### INTRODUCTION

Cleft lip and palate anomalies may be associated with other congenital malformations. A high incidence has been reported by Loretz et al<sup>1</sup> who found 36.2% of their patients having associated spinal anomalies. In this study, 40 patients of cleft lip and palate who were admitted to the Plastic Surgery Unit at J N Medical College, Aligarh Muslim University, Aligarh were subjected to antero-posterior and lateral skiagrams of the entire spine to detect vertebral anomalies. The main emphasis was on radiological investigation. The following observations were made:

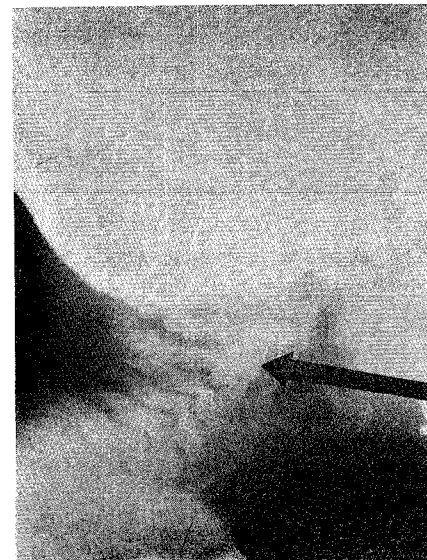
### OBSERVATIONS

Table No.1

	Cleft lip (24)	Cleft lip and palate (10)	Cleft palate (6)
Number in each group is given in brackets.			
Fusional anomaly of cervical spine			
C1-C2	Nil	1	Nil
C2-C3	1	2	
Spina bifida lumbar		1	
Spina bifida sacral			1
Sacralisation of lumbar vertebra	1		
Laminar deficiency	1		



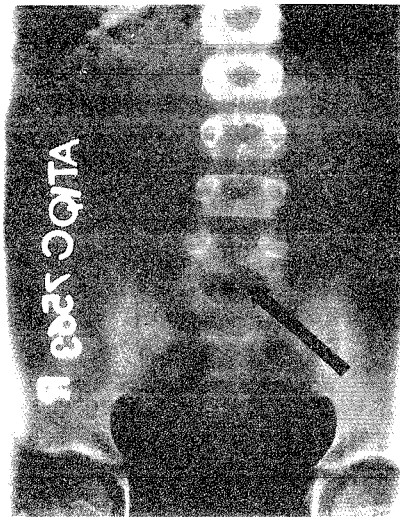
(Fig - 1) X-ray showing fusion of first and second cervical vertebrae



(Fig - 2) X-ray showing fusion of second and third cervical vertebrae



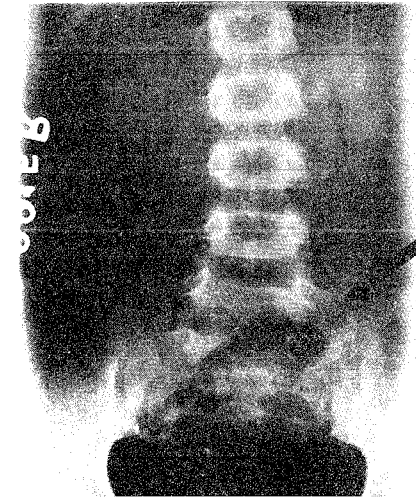
(Fig - 3) X-ray showing fusion of second and third cervical vertebrae



(Fig - 4) X-ray showing spina-bifida of lumbar vertebra



(Fig - 5) X-ray showing spina-bifida of sacral vertebra



(Fig - 6) X-ray showing sacralization of lumbar vertebra

## DISCUSSION

The incidence of cleft lip and palate anomalies have been variously reported as occurring 1.18-1.98 per 1000 live births. The incidence of other co-existent congenital malformations among the cleft lip and palate group range from 3-33%<sup>2</sup>. Loretz et al found that malformations of bone and joints are the commonest malformation found in conjunction with cleft lip and/or palate.

Cervical spine fusion is the congenital anomaly commonly found in our cases. Instances of spinal fusion were reported as early as 500 BC. One of the known constellations of this is Klippel Feil Syndrome. This is present only when the lip and palate defect is extensive.

In our series of 40 patients, 7 patients (17.5%) had spinal anomalies. Of them 3 (7.5%) had cervical spine fusion and the rest were spina bifida, sacralization of lumbar vertebra and laminar deficiency. Roos and Lindsay<sup>3</sup> reported fusion of cervical spine in cleft patients and in their study the anomalies were more in the cleft lip group than in the cleft palate group. Incidence in their series was 42.5%. In the study of Richard Wyse<sup>4</sup> the incidence was 19.48%.

Cervical spine anomalies need to be kept in mind when we manage cleft lip and palate patients because of the possible difficulties and problems they might pose during intubation and anaesthesia<sup>5</sup>.

## References

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