

# ALVEOLAR CLEFT CLOSURE WITH ILIAC BONE GRAFT : A CASE REPORT



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## INTRODUCTION

Alveolar bone grafting is a surgical procedure that has been accepted with the purpose of obtaining maxillary arch continuity, to maximize alar base reconstruction, to eliminate labial and palatal fistulae, to provide nasal alar cartilage support, to stabilize the maxillary segment and to provide a solid maxillary structure. The iliac crest is used to be the most suitable donor site, since it is easier to get an adequate amount of cancellous bone by percutaneous incision.<sup>1,2,3,4</sup>



Figure 1 Extraoral and intraoral image of the patient before surgery



Figure 2 Panoramic radiograph before bone grafting

## DISCUSSION

In the present case, the alveolar grafting was done at 14 year-old with extraction of impacted right permanent canine, that performed due to unfavorable inclination. the alveolar cleft was closed using iliac bone graft, owing to its ease of access, and also it is easy to get an adequate amount of cancellous bone with a percutaneous incision. Cancellous grafts subjected to a rapid revascularization that allow more rapid union and the osteoblasts. The autogenous graft may restore tooth-bearing function. Only autologous cancellous bone creates bone that responds normally to eruption and orthodontic movement of teeth. This bone is highly cellular, making it resistant to infection and optimal for rapid healing.<sup>5,6</sup>

## CONCLUSION

The alveolar cleft closure using with iliac bone graft in this case overall seemed success with proper closure of nasal floor mucosa; filling the defect with grafted bone and approximation of the oral mucosa to achieve a watertight closure.

## REFERENCES

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## CASE REPORT

We reported a 14 year-old girl with the chief complaint of alveolar cleft at 11-13 region with canine impacted. The cleft of the lip and palate was repaired. Panoramic and occlusal radiography was performed before the procedure.

The surgical procedures were performed with an incision a full-thickness mucoperiosteal flap, separating the nasal mucosa from the gingiva. Extraction of impacted right permanent canine was performed. The orthopedic harvested anterior iliac crest bone with an osteotome was then used to obtain a block of iliac bone of 1.5x1x0.5 cm as graft.. The bone graft was then packed into the alveolar cleft in 11-13 area, the oral mucosa was closed with interrupted suture and the wound was covered by periodontal pack for 7 days.

The patient was given antibiotic and analgesic and was instructed to eat a soft diet, to maintain oral hygiene. The patient returned to the clinic with no complaint, the periodontal pack was removed. the suture removed at the second week after surgery. Five months postoperatively examination would performed, for assessing and documenting quality of alveolar bone grafts.



Figure 3 Intra operative



Figure 4 POD 1 (a) 5 month postoperatively examination (b)