Application of 3D reconstruction by 16 slice spiral CT in treatment of maxillofacial bone fractures

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To study application 3D reconstruction by 16 slice spiral CT in treatment of maxillofacial bone fractures. Methods: A total of 40 cases with maxillofacial bone fractures underwent 16 slice spiral CT. The images were reconstructed by surface shaded display (SSD), maximum intensity projection (MIP) and volume rendering (VR) techniques. And the result was compared with conventional CT images. Results: The images by 3D reconstruction showed fracture site directly. Out of 83 fracture sites, 3D CT clearly showed 78 sites with accuracy rate as 94%; while conventional CT showed only 61 sites with 73.5% accuracy rate. Conclusions: Compared with conventional CT, 3D reconstruction by 16 slice spiral CT can show the fracture sites from multi-direction. The image is 3D, complete and clear. It can provide more valuable information for clinical therapy.

[KEY WORDS] 16 slice spiral CT; Maxillofacial bone fracture; 3D reconstruction techniques