

Transposition of Zygomatic Arc in Replacement of Orbital Wall Defects

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Introduction

Reconstruction of orbital wall defects perturb
surgeons not only for

cosmetic problems but also for facing the risks of clinically

significant functional ophthalmic disturbances as enophthalmos or

dystopia. Traumas, infections, tumoral invasions and/or iatrogenic

extensive bone resections are known main causes of orbital wall

defects

Methods

2 fixed head cadavers on four sides were used in order to define

incision technique, the anatomy of zygomatic arc(ZA) and

neighbourhood in BAU, Rhoton's Anatomy Lab, Istanbul. Mayfield

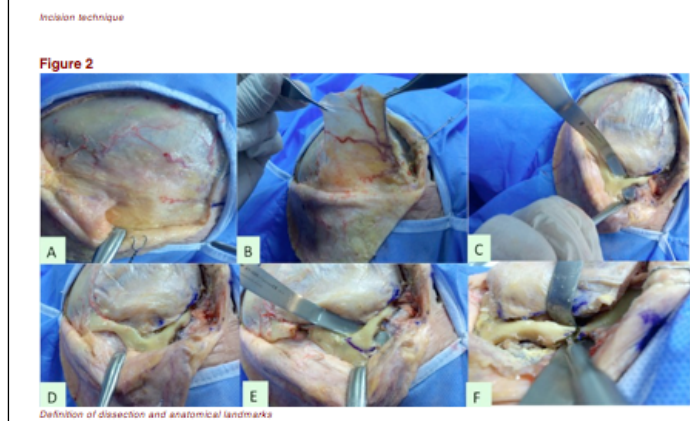
head-holders were used for positioning. Titanium miniplate and

mini screws systems utilized for attachement of
ZA autogrefts in

replacement orbital wall defects in unison.

figure1

figure 2



Results

Optimal positioning principles for best exposure of anatomical

landmarks has been defined. The modification of AI-Mefty's

cranioorbitalzygomatic approach incision with Gillie's was

performed in order to dissect zygomatic arc(ZA)(Figure-1). The

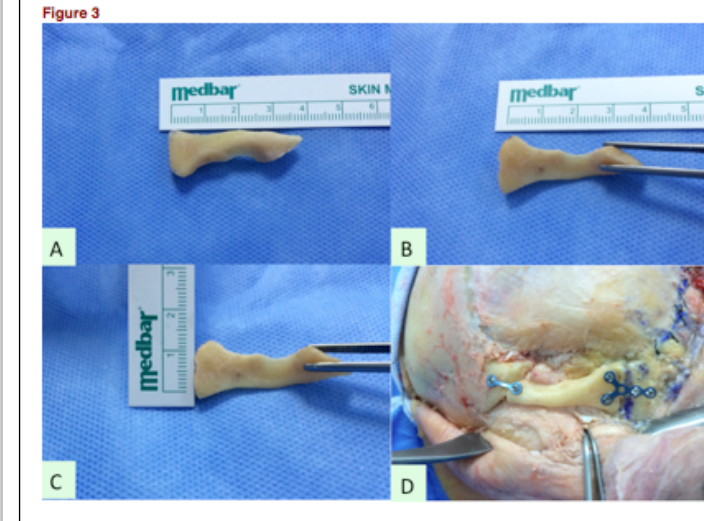
anatomy of ZA is defined with measures(Figure-2, Figure-3).

Successful well-matched replacement of ZA autograft attached

with mini-plate/screw systems has shown as lateral and/or superior

orbital walls in Figure-3.

figure 3



Conclusions

Modifications of different incision techniques may result better

exposure. Detailed anatomical definitions of selected anatomical

regions and neighbourhood is essential in order to avoid

complications. Zygomatic arc transposition may be a feasible,

economical technique with other known advantages of autografts,

and also very handy in emergency cases.

Learning Objectives

To obtain a cosmetic and esthetic results after surgery of orbital

pathologies. Safe, economic and less risqué material as an