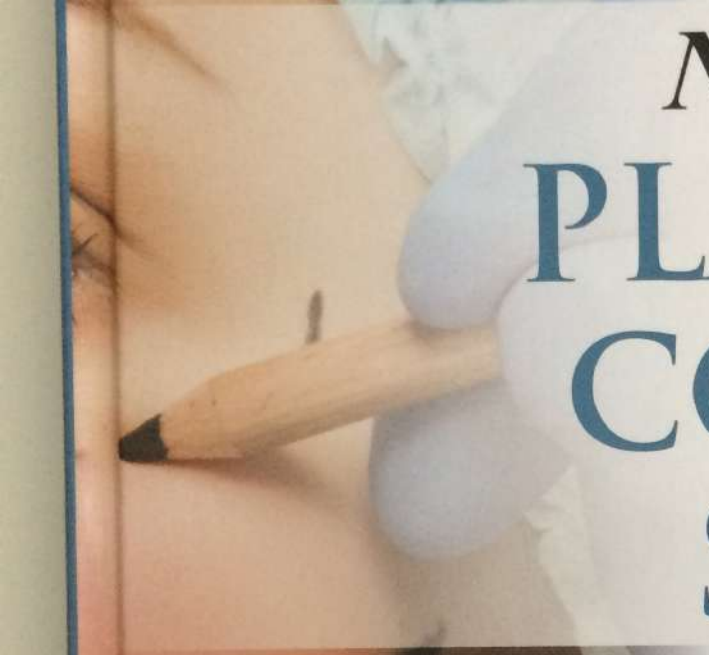

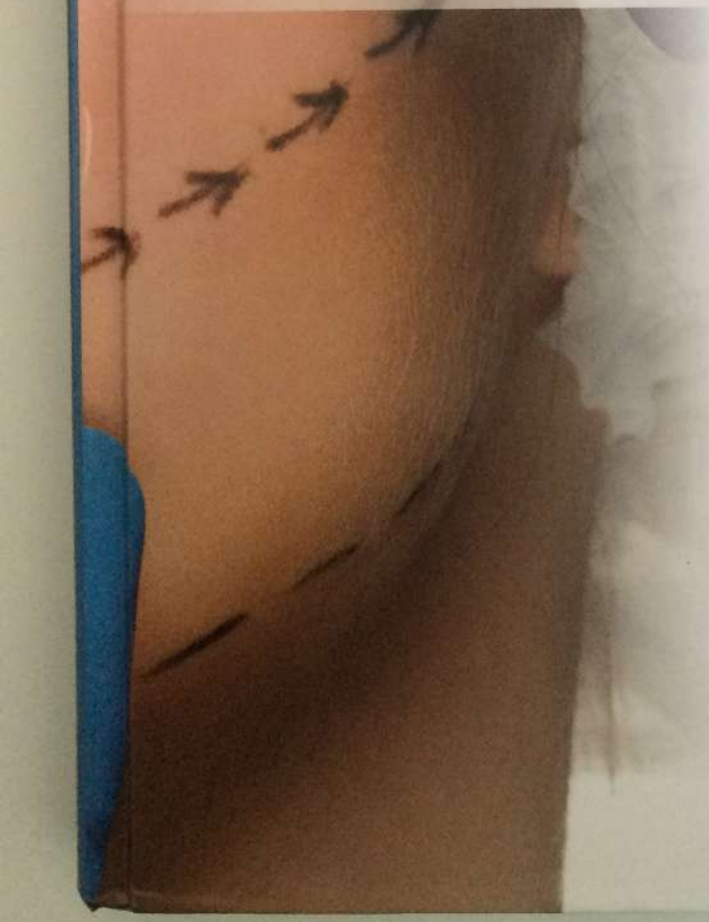

New Frontiers in
PLASTIC AND COSMETIC SURGERY

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Foreword
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4 Endoscopically Assisted Temporalis Muscle Transfer Harvesting for Orbit Reconstruction

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INTRODUCTION

The temporalis muscle flap (TMF) is a workhorse in our daily surgical practice of head and neck/reconstructive surgeons.[1-8] Its main address is to reconstruct the orbital content (where removed for oncological reasons) and the upper jaw. Some authors recommend its use in retromolar trigone cancer reconstruction, but we believe that contraindications and sequelae are worse than benefits, since mouth opening can become less and less during the time with fibrotization of the flap and muscular necrosis can increase the intraoral wound healing time.

Nowadays surgery has increased its possibilities becoming less invasive and aggressive. Endoscopy gives to the surgeon the opportunity to reach otherwise difficulty reachable anatomical structures and perform the operation with great respect to nearer anatomical structures.

It is so possible to dissect the temporalis muscle without impairment of the frontalis branch of the facial nerve, with minimal periosteum elevation, and thus respect of the facial "danger zones".

With the endotechnique there is preservation of the sensory nerves and the rate of postsurgical alopecia is less. There is less numbness, less blood loss, and less recovery time. The surgical time is also shorter and the procedure can be easily applied to bald patients.[9]

It is not possible to not considerate the disadvantages. Those are represented by a higher difficulty level; the accuracy of the operation is operator and instrument dependent. The procedure is new and requires a new understanding of the surgery itself.

Fig. 4.1: Temporalis muscle flap.

ANATOMICAL BASIS

The temporalis muscle is a fan-shaped muscle on the lateral skull, filling the entire temporal fossa. It passes under the zygomatic arch to insert onto the coronoid process a the anterior aspect of the ramus of the mandible (Fig. 4.

The TMF has a type III pattern of circulation. The dor nant pedicles are the anterior and posterior deep tempo arteries and venae comitantes. These arteries arise fr the internal maxillary artery that is a branch of the exter carotid artery. The vascular pedicle enters the muscle its undersurface.

The average size of the temporalis muscle is appro mately 10 × 20 cm and has its pivot at the level of the co noid insertion/origin of the temporalis vessels from maxillary artery.[10,11]

SURGICAL TECHNIQUE

Endoscopy has completely changed the approach to t surgery since it reduces damages to temporal "zones