

# **PRESENTATION OF OUR INITIAL EXPERIENCE FROM THE USE OF THE CRANIAL OCCLUSION SYSTEM “TALOS”.**

**A. Vakis, D. Karabetsos, K. Manolitsis, C. Kougentakis.**

**Department of Neurosurgery, University Hospital, Heraklion**

## **Materials and method:**

We realized repositioning of the bone flap with the help the freza and the discoid graft of the Talos system in 32 patients who underwent craniotomy for various reasons and in 9 patients who underwent decompressive craniectomy due to head injury.

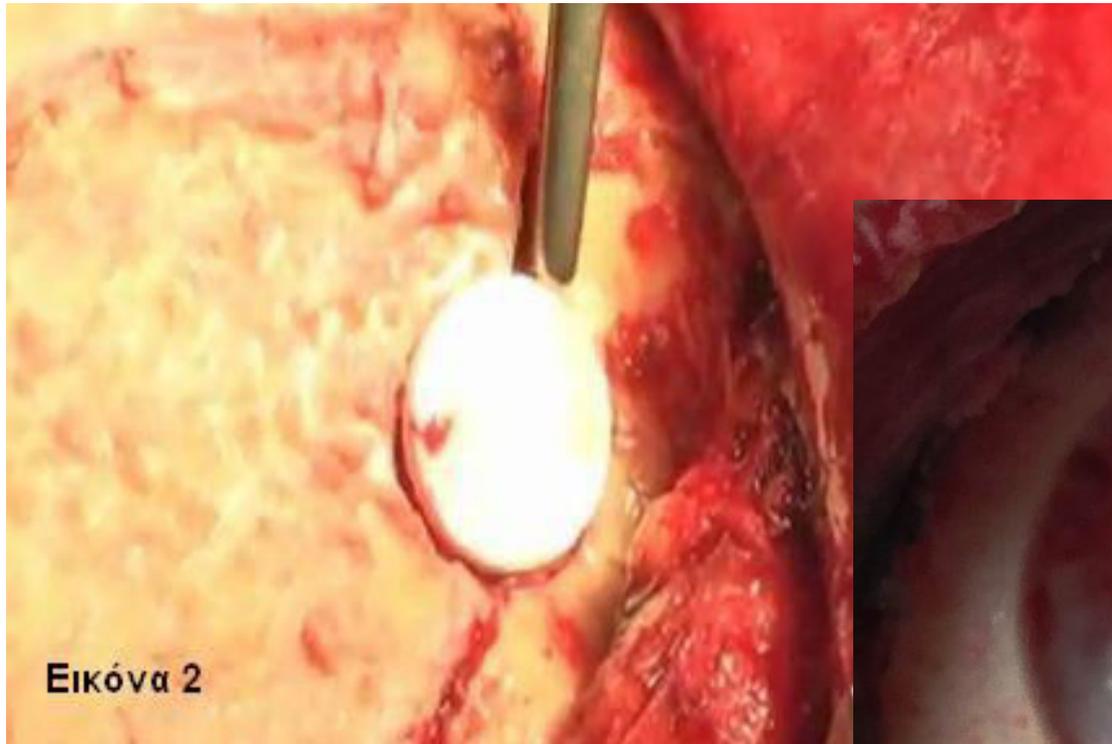
**This system consists of:**

- 1. a specifically shaped freza which is adapted to the craniotomy drill and allows the formation of a knob inside the preexisting trephination burr. The perimeter and shape of the knob are stable and independent of the form that the skull takes after the repositioning of the flap (Figure 1).**



**2. a discoid graft which fits exactly and wedges on the skull. (Figure 2)**

**The bone projection prevents the immersion of the graft. (Figure 3)**



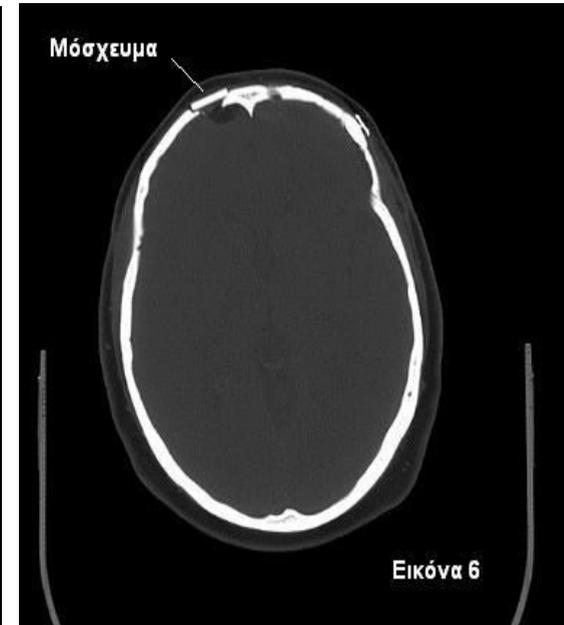
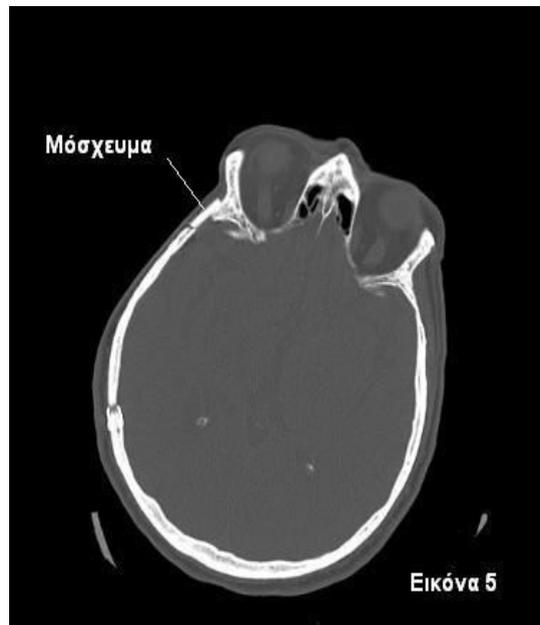
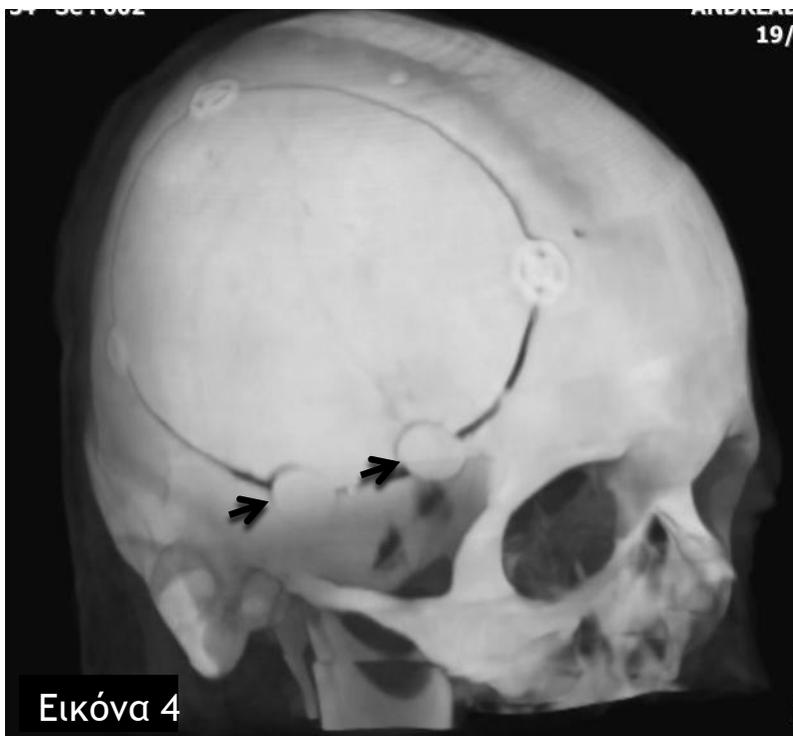
Εικόνα 2



Εικόνα 3

## Results (immediately)

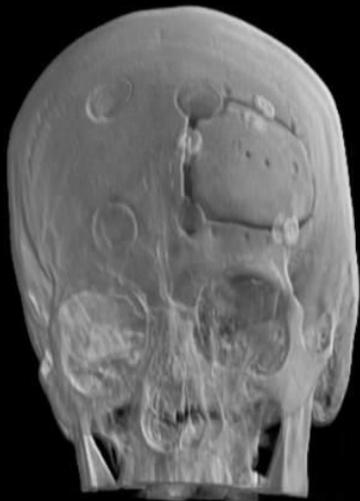
1. the use of the material caused no injury to the dura or other operative complication.
2. There was no postoperative displacement of the graft.
3. There was no skin retraction in the skull.
4. The hole could not be perceived neither visually nor palpably.
5. No CSF leakage was observed



## Results (later)

The patients were monitored from 4 to 18 months after the placement of the bone, and we found the following:

1. The display showed satisfactory ossification performance in six months.
2. There were no absorptions of the bone flaps (Figures 7, 8 & 9).



Εικόνα 7



Εικόνα 8



Εικόνα 9

## Results (later)

The reoperation to a patient 6 months after the initial placement showed:

1. Solid holding between the graft and the bone (Figure 10).
2. Macroscopically visible ossification especially the inner surface of the cranial bone portion. (figure 11, 12)



Εικόνα 10



Εικόνα 11



Εικόνα 12

## **Conclusions**

From the initial results it appears that Talos system is safe in its application, provides good aesthetic results and possibly reduces the probability of the absorption of the bone flap bone through early creation of bone “bridges” between the flap and the surrounding bone.