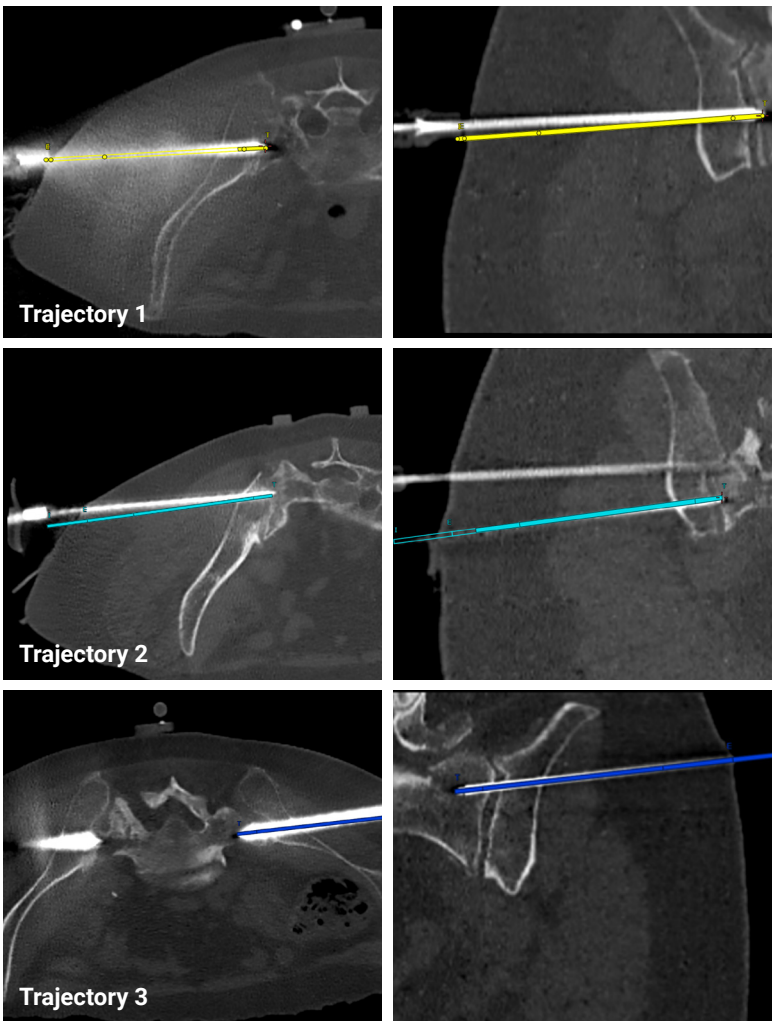
Epione

Case Study

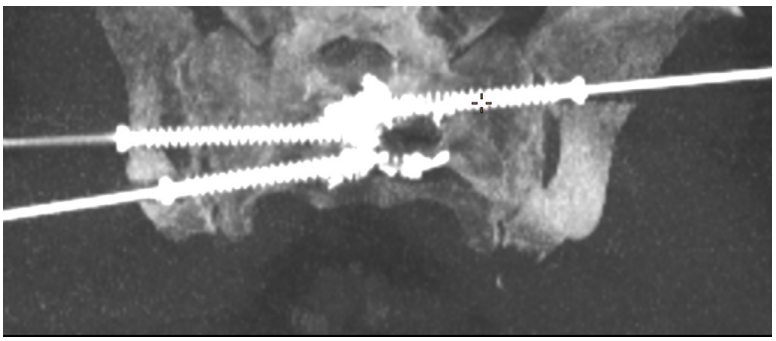
Epione® robotic pelvis osteoplasty and cementoplasty with bilateral trajectories through the sacroiliac track

- Bilateral trajectories through sacroiliac track
- Trajectories right on target with mean lateral accuracy of 1.1mm
- One single intermediate control scan at the cortical entry point per insertion

Planned (color) compared to achieved (white) in axial and coronal views



Post-treatment scan (post screw placements and cement injection)



Physician: Dr. Dassa, Interventional Radiologist
Institution: Institut Paoli Calmettes
Location: Marseille, France

Background:

Patient undergoing chemotherapy for the treatment of endometrium cancer and diagnosed with a sacrum "H" bone fracture due to osteoporosis and radiation therapy.

Approach:

The patient was treated in the prone position, under general anaesthesia. Using the **Epione® System**, three introducers were inserted to place screws and inject cement in the pelvis through the trans-sacroiliac track.

1 Plan / Target

Three trajectories were planned with **Epione® Software**. The **Epione® Robotic Arm** positioned automatically to the desired depth and location.

The **Introducer Guide** secured the guiding axis despite strong mechanical forces due to hammering. One single intermediate control scan at the cortical entry point per insertion was required.

2 Deliver

The physician inserted three introducers through the trans-sacroiliac track with a mean lateral accuracy of 1.1mm. No robotic nor manual correction was required after intermediate control CT scan.

- **Trajectory 1:** 1.0mm lateral accuracy (*Medtronic OsteoCool bone access kit 8G 13cm*)
- **Trajectory 2:** 1.6mm lateral accuracy (*Thiebaud t'BM II 15cm 11G*)
- **Trajectory 3:** 0.7mm lateral accuracy (*Thiebaud t'BM II 15cm 11G*)

The physician then performed cementoplasty and osteosynthesis.

3 Outcomes

No adverse events had occured during the procedure.

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