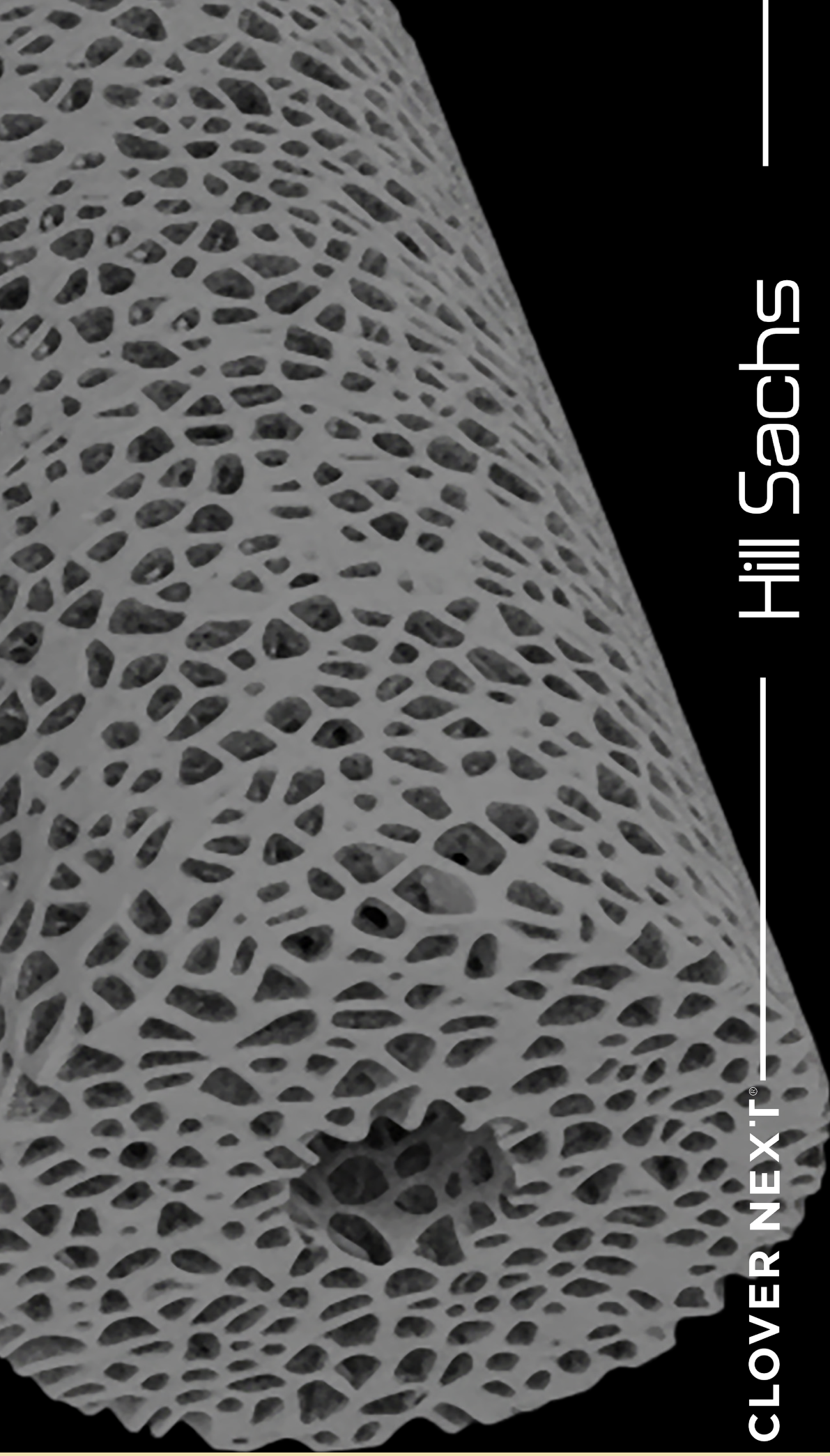




● CLOVER NEX.T[®]

Hill Sachs

Biological Treatment of Hill-Sachs Lesions with Bone Grafting



Hill-Sachs bony defects, commonly associated with episodes of glenohumeral instability, compromise the articular surface of the humeral head and can significantly limit shoulder functionality.

The goal of biological treatment is to restore the anatomical and functional integrity of the joint, improving stability, biomechanics, and reducing postoperative pain.

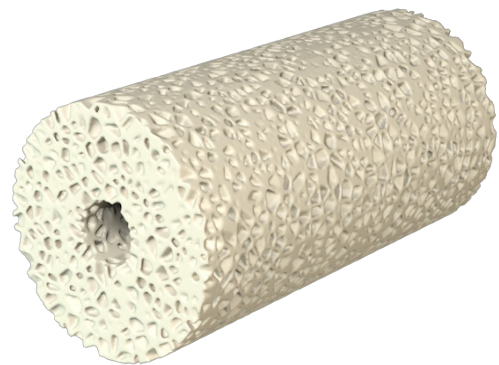
Biological and Functional Benefits:

Restoration of joint stability and humeral head congruence.

Mechanical and biological support to the surrounding tissues, with optimal graft integration.

Reduction of postoperative pain and faster functional recovery.

Prevention of tissue degeneration and preservation of long-term bone and cartilage quality.



Hill Sachs Solution

Hill Sachs Solution is a comprehensive surgical procedure for the treatment of Hill-Sachs lesions, integrating:

- a dedicated composite osteochondral graft,
- dedicated instrumentation,
- a standardized surgical technique to ensure precise and reproducible positioning.

The graft is made using new generation materials:

- Natural heterologous mineral matrix, providing structure and osteoconductivity.
- Biodegradable synthetic polymers, ensuring mechanical stability and controlled resorption.
- Porcine-derived collagen fragments, promoting biological integration.

The device is supplied sterile in a double-sealed package and sterilized using ethylene oxide, in full compliance with safety and traceability requirements.

Surgical Technique

The patient is positioned in the beach-chair position or in lateral decubitus.

Arthroscopy is performed with the scope inserted through the anterosuperior portal.

Using a spinal needle introduced from the posterior portal, an access centered on the Hill-Sachs defect is identified, orienting the needle along the ideal axis passing through the center of the humeral head.



After locating and exposing the lesion, insert the cannula and trocar into the defect site, centering the lesion.



Remove the trocar while maintaining the cannula in position.



Insert the guide-wire positioner (Kirschner wire) through the cannula and ensure stable circumferential contact with the lesion margins.



With the positioner firmly seated against the bone, insert the guide wire along the axis crossing the center of the humeral head; advance approximately 25–30 mm without perforating the opposite cortex. Then remove the positioner, leaving the wire in place.



Introduce the reamer over the wire and through the cannula; ream the socket until the black mark on the reamer aligns with the cartilage layer at the margin of the lesion. Depth varies depending on the defect.



Remove the reamer while keeping the Kirschner wire in place.



Introduce the trial impactor and check the hole (diameter, depth, edges); then remove it.



Insert the bone graft over the guide wire and impact it until the graft surface is flush with the humeral surface.



Remove the guide wire. Use the final non-cannulated impactor (with a diameter larger than that of the graft) to press the graft into the previously reamed cavity (press-fit); impact progressively until primary stability is achieved.



Refine the margins with a shaver to match the curvature of the humeral head and avoid prominence.

Conclusions

The biological approach to Hill-Sachs lesions using bone grafting and composite substitutes such as Hill Sachs Solution represents an advanced strategy for the anatomical and functional reconstruction of the humeral head.

This method enables restoration of joint stability, improvement of biomechanics, and reduction of pain, promoting faster recovery and long-lasting clinical outcomes.

Instrumental

CANNULA ASSEMBLY DIX-M5SS00000S



TROCAR ASSEMBLY DIX-M4SS00000S



LESION IDENTIFIER DIX-K9SS00008S



GUIDE WIRE DIX-M2SS00000S



REAMER 10 MM DIX-A8SS00010S



REAMING CONTROL DIX-K9SS00009S



FINAL IMPACTOR DIX-M3SS00000S





CAP		DIX-M5SS00000S
LESION IDENTIFIER		DIX-K9SS00008S
GUIDE WIRE		DIX-W2SS00000S
REAMER	10 MM	DIX-A8SS00010S
REAMING CONTROL		DIX-K9SS00009S
FINAL IMPACTOR		DIX-M3SS00000S



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