coflex Surgical Technique

Interspinous Implant
Overview

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I. Preparation
II. Microsurgical Decompression
III. Implant Site Preparation
IV. Implant Insertion
Preparation

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Patient Positioning

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- Patient is placed in prone position on surgical frame avoiding hyperlordosis of the spinal segment(s) to be operated upon.
- A neutral position or a slight kyphosis may be advantageous for surgical decompression as well as for appropriate interspinous distraction.
**Preparation**

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- Routine (midline) skin incision is performed.
- The muscle is sharply dissected lateral to the supraspinous ligament preserving the entire thickness of the supraspinous ligament.
- Alternatively the supraspinous ligament may be resected depending on surgeon’s preference.
Paraspinal muscles are stripped off the laminae while preserving the facet capsules.
Note: Dependent on the pathology a microsurgical unilateral decompression can be performed and then the supraspinous ligament together with the fascia and muscle from the opposite side can be mobilized together. Completion of the microsurgical decompression can then be performed.
Preparation

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• The supraspinous ligament is dissected subperiostally and preserved as a thick cuff and retracted laterally.

• If possible a small portion of the bony tip can be resected together with the supraspinous ligament. This will aid a faster healing after reconstruction of the ligament.
Resection of interspinous ligament:

The interspinous ligament is sacrificed and any bony overgrowth of the spinous process that may interfere with insertion is resected.
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Ligamentum Flavum is then resected and microsurgical decompression is performed, relieving all points of neural compression.
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• Trials are utilized to define appropriate implant size.

• Trial instrument is placed to evaluate proper contact with spinous process and amount of interspinous distraction.
Implant Site Preparation

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Some bony resection of the spinous process may be needed to ensure proper contact of the implant.

Bony resection to ensure flat surface
Implant Site Preparation

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To ensure proper depth of implant insertion a small portion of the laminar surface may need partial resurfacing.
Distraction is considered to be appropriate to prevent any settling of the interspinous distance after successful decompression of the spinal stenosis.
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Implant Insertion

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The wings may need to be opened slightly using bending pliers at the mid portion of the wing to ensure appropriate depth of insertion.

Implant is introduced via impaction utilizing a mallet.
Proper depth is determined if a beaded tip probe can be passed freely leaving 3-4 mm separation from the dura. If the implant is not seated appropriately further resurfacing or slightly more impaction force may be utilized.
Crimping of Wings

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If the wings are not having sufficient bony contact additional stability can be achieved by slightly crimping the wings.
Coflex™ in place
The interspinous implant maintains distraction and is dynamically compressible in extension
Final X-Rays

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Supraspinous Ligament

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Resuturing of Supraspinous Ligament

Figure of 8 suture through two bone holes in the spinous process and through the supraspinous ligament.
Resuturing of Supraspinous Ligament

Alternatively the fascia and the supraspinous ligament can be closed in one layer over the spinous processes.
Routine retreat – wound closure

A surgical drain may be placed as per surgeon preference. Paraspinal muscles are reattached to the supraspinous ligament. Skin is closed in the usual manner.
If a two level decompression is mandated the implants must be sequentially placed to the appropriate depth avoiding any overlap (contact) of one pair of wings upon the other.”
Final X-Rays

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