

EFFICACY AND LONG TERM RESULTS OF A SINGLE LEVEL DISCOVER TOTAL CERVICAL DISC REPLACEMENT

Vukić, M., M.D., PhD., Rožanković M., M.D. PhD., Marasanov S.M., M.D., Domazet I., M.D.

Department of Neurosurgery, University Hospital Centre «Zagreb», Zagreb, Croatia

AIM: To evaluate the efficacy and long-term effectiveness of Discover total cervical disc replacement in patients with single level cervical disc disease.

MATERIALS AND METHODS: One hundred and twentyfive patients with a single level cervical disc disease who were considered good candidates for total cervical disc replacement were treated using Discover artificial disc (DePuy Spine Inc., Raynham, Ma) between June 2008 and October 2014. All patients were evaluated with pre - and postoperative serial radiographic studies (MRI, standard and functional cervical spine X-rays), and clinically, using The Neck Disability Index (NDI), Visual Analog Scale (VAS) and neurological status at 3, 6, 12, 24 and 48 months.

RESULTS: There has been significant improvement in clinical parameters, VAS and NDI, at 3, 6, 12, 24 and 48 months. During the follow – up period seventeen of our patients developed heterotopic ossification with complete loss of range of motion at the treated level (13.6 %). One patient had prosthesis migration and needed to be reoperated. There were no other major surgery related complications.

CONCLUSION: The Discover total cervical disc replacement offers excellent outcome for a single level cervical disc disease in selected patients at long-term follow-up.