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Notice of Independent Review Decision

DATE OF REVIEW: April 7, 2011

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Inpatient cervical anterior decompression discectomy with arthrodesis at C3-C4
LOS x 1 (63075)

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION

Diplomat, American Board of Orthopaedic Surgery
Fellowship trained in spine surgery

REVIEW OUTCOME

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

Upheld (Agree)

Medical documentation **does not support** the medical necessity of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW

Dr.

- Office visits (03/20/06 – 01/26/11)
- Procedures (03/20/06 – 03/24/06)
- Diagnostic studies (01/03/11)

- Office visits (01/29/08 – 11/16/10)
- Diagnostic studies (06/27/08 – 01/03/11)
- Procedures (03/20/06 – 03/22/10)
- Utilization Review (02/24/11, 03/10/11)

TDI

- IRO request
- Utilization Reviews (02/24/11, 03/10/11)

ODG has been utilized for the denials.

PATIENT CLINICAL HISTORY [SUMMARY]:

This is a female who injured her neck on xx/xx/xx. Exact mechanism of injury is not provided in the records.

2006: M.D., evaluated the patient for complaints of neck pain and radicular symptoms. He noted the patient had undergone a surgery in 2005 by Dr. She continued to have problems and was referred for pain management. Computerized tomography (CT) of the cervical spine revealed few areas of bridging bone across the disc space at C5-C6 and significant problems and osteophytes and calcification of the posterior longitudinal ligament compressing the thecal sac and causing spinal stenosis. CT myelogram showed a failed fusion, significant stenosis at C5-C6 at the level of the previous surgery, moderately severe spinal canal stenosis at C5-C6 and incomplete fusion of C5-C6 ventral bodies. Dr. did not feel that revision surgery would improve her condition significantly because of the chronic nature of her radiculopathy.

In March, Dr. performed anterior cervical discectomy and fusion (ACDF) at the C5-C6 level. The patient's postoperative MRI still showed significant calcification at that level and significant stenosis at C5-C6 extending behind the vertebral body of C5 as well as behind the vertebral body of C6 causing the entire segment to be significantly compressing the spinal cord. A postoperative CT scan showed calcifications behind the vertebral bodies of C5 and C6. Dr. performed revision of the ACDF at C4-C5 followed by C5 complete corpectomy anterior approach with arthrodesis from C4-C7, anterior interbody technique with instrumentation from C4-C7 and posterior C4-C5 to C6-C7 posterior lateral arthrodesis with segmental instrumentation from C4-C7. In October, due to failure and loosening of hardware, the patient underwent removal of the anterior instrumentation.

2008 – 2009: Dr. noted ongoing complaints of pain in the neck radiating into the shoulder with weakness in the handgrip on the left. The patient also reported crepitus and grinding sensation in the neck with pain radiating down to the left arm. X-rays showed a fracture of the C4 lateral recess screw and pseudo arthrosis of C4 and C5 level.

A CT myelogram revealed: (1) Posterior fusion at C4-C5, C5-C6 and C6-C7 with bone graft material centrally at C5 and C6. (2) Mild spinal canal stenosis and moderate bilateral neural foraminal narrowing at C3-C4. (3) Other mild to moderate spondylitic changes. (4) Medial position of the right carotid bulb.

2010: In March, Dr. performed removal of posterior segmental instrumentation. Postoperative diagnostic studies revealed fusion anteriorly and removal of the posterior instrumentation. There were osteophytes noted at the C3-C5 level and mild kyphotic deformity. X-rays revealed stable radiographic appearance of the cervical spine since April 2010.

On November 16, 2010, Dr. noted pain radiating from the neck down to the left arm and left leg as well. Examination revealed pain in her paraspinal muscles and shoulders with tenderness. Dr. recommended a new MRI to see if the adjacent levels had any new herniated discs or facet arthropathy.

2011: MRI of the cervical spine revealed postoperative changes of lower cervical spine fusion. At C3-C4, there was moderate loss of disc height and signal intensity

associated with moderately severe diffuse annular bulge and marginal osteophyte formation. This was stable since the prior exam and resulted in pronounced thinning of the dorsal and ventral subarachnoid spaces and moderate bilateral foraminal stenosis.

Dr. reviewed the MRI and noted focal C6 myelomalacia and stenosis at C3-C4. He recommended ACDF at C3-C4 if symptoms worsened or if not relieved by conservative care.

On February 24, 2011, M.D., denied the request for inpatient cervical anterior decompression discectomy with arthrodesis C3-C4 LOS x 1 based on the following rationale: *“As per medical records, the patient had previous ACDF and subsequent removal of posterior segmental instrumentation. In the clinical record dated September 15, 2010, the patient complains of neck pain, localized to the base of her neck right around the junction between the shoulders. However, an updated neurologic examination including sensory/motor/reflex status was not included for evaluation. The MRI scan of the cervical spine on January 3, 2011 showed mild to moderate spinal stenosis with foraminal stenosis C3-C4. Furthermore, there was no mention of any conservative treatment that was rendered for the patient’s signs and symptoms. I discussed the case with Dr. The claimant has had fusion at C4-C7 and still symptomatic; including pain. MRI scan shows no change from 2008. The claimant has no symptoms of myelopathy. There has been no real recent focus on therapy. He was unable to provide additional clinical information to warrant the request. Based on the guidelines, there must be evidence that the patient has received and failed at least a six to eight week trial of conservative care. The maximum potential of the conservative treatment done was not fully exhausted to indicate a surgical procedure. As such, the appropriateness, medical necessity, and anticipated benefits of this requested procedure are not sufficiently substantiated.”*

On March 10, 2011, M.D., denied the appeal for inpatient cervical anterior decompression discectomy with arthrodesis C3-C4 LOS x 1 based on the following rationale: *“Records indicate that there was an adverse determination of a previous review. In acknowledgment of the previous non-certification due to lack of documentation of updated neurological examination including sensory/motor/reflex status and conservative treatment, there is now documentation that conservative treatment has included medication. In addition, there is documentation (11/16/10) of persistent neck pain radiating down to the left arm and left leg. Imaging findings include January 3, 2011 cervical MRI report demonstrating, at C3-C4, moderate loss of disc height and signal intensity associated with moderately severe diffuse annular bulge and marginal osteophyte formation resulting in pronounced thinning of the dorsal and ventral subarachnoid spaces and moderate bilateral foraminal stenosis. However, there is no documentation of sensory symptoms in a cervical distribution that correlate with the involved cervical level or presence of a positive Spurling test, evidence of motor deficit or reflex changes or positive EMG findings that correlate with the cervical level, and failure of at least six weeks of conservative care. In addition, there is no documentation of a recent neurology consultation with corresponding treatment regarding the rhythmic non-physiologic shaking of the head. As such, the medical necessity of the request has not been established. Subsequently, the request for one day length of stay has not been established.”*

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.

The patient had a previous cervical spine surgery in 2005 by Dr. apparently at the C5-C6 level. The patient continued to have residual symptoms. The CT scan of the cervical spine revealed a lack of full consolidation across the C5-C6 level. There was also calcification of the posterior longitudinal ligament with compression causing spinal canal stenosis. Pseudoarthrosis was diagnosed and Dr. initially did not consider revision surgery necessary as he was concerned it would not improve her chronic radicular changes.

He also noted that she had a nonphysiologic shaking of her head.

In March 2006, however, Dr. did perform revision surgery on March 22, 2006. He did a redo C5-C6 fusion with anterior instrumentation. However, postoperatively she still had residual symptoms and residual findings were noted as well with the CT scan showing continued compression with what appeared to be ossification in the posterior longitudinal ligament. On March 24, 2006, she underwent a corpectomy of C5 with a C4 through C7 anterior fusion as well as then a posterior fusion with hardware placement.

The next records indicate of October 18, 2006, that there was loosening of the anterior instrumentation with screw removal. However, there is no indication that repeat fusion was accomplished.

On January 28, 2008, Dr. noted that the patient had fracture of the C4 lateral mass screw. He proposed removal of this posterior spinal fusion instrumentation.

On June 27, 2008, a myelogram CT scan was performed. This showed at C3-C4 some mass effect on the thecal sac with moderate left neuroforaminal narrowing, and mild right. The C4-C5 level showed moderate bilateral neuroforaminal narrowing and mild spinal canal stenosis. There is no comment regarding the integrity of the fusion at this level.

The C5-C6 level showed bone graft intradiscal. There were still prominent posterior osteophytes present on the left resulting in mild left neuroforaminal narrowing. Then they go on to say there is moderate left and mild right spinal canal stenosis. At C6-C7, there was mild spinal canal stenosis and mild bilateral neuroforaminal narrowing.

On March 22, 2010, Dr. performed removal of posterior segmental instrumentations for hardware failure. However, there is no mention of any analysis of the integrity of the fusion mass.

On April 7, 2010, the patient was evaluated by Dr.. He noted that she still had the shaking episodes which had no known physiological cause. The x-rays were reviewed and he commented that there was what appeared to be a solid fusion distal to the C3-C4 level.

On September 15, 2010, Dr. proposed that she should have repeat x-rays of the cervical spine. The study was performed on October 20, 2010, showing degenerative disc disease with prominent anterior endplate osteophytes at the levels of C3-C4, C4-C5, and C6-C7 similar to the previous studies.

On November 16, 2010, Dr. stated that the patient was having neck pain radiating down her left arm and left leg as well. He proposed a new MRI. Please note that no detailed neurological assessment was performed to help assess these pain symptoms on a dermatomal basis.

On January 31, 2011, MRI of the cervical spine was completed. The C3-C4 level was noted to have loss of disc height and signal intensity with moderately severe diffuse annular bulge and marginal osteophyte formation but stable since the prior exam. It was noted that there was moderate bilateral foraminal stenosis. At C4-C5, it was noted that there was postoperative change. At C6-C7, there was also marked loss of disc height and signal intensity but no foraminal or canal narrowing was noted.

There were two utilization review analyses forwarded which did not concur with the proposed surgery by Dr..

Based on the presence of the myelogram CT scan which gives better bony definition than does the MRI and the previous noted hardware failure including the lateral mass screw fracture and lack of CT scan confirmation of healing of the fusions at C4-C5 and C6-C7 as well as residual spinal or neuroforaminal stenosis at these levels with symptoms that have not been defined objectively on a neurological basis that are correlated with a C3-C4 level the aspects of performing the surgery at C3-C4 with resolution of the patient's symptoms appears at best speculative. This patient needs a further detailed analysis of what has healed and what has not healed and further validation that there is medical necessity of performing something further at C3-C4 versus at other levels. Of interest, this patient had continued to smoke through December 2009 in the face of dealing with pseudoarthrosis. Thus whether she has healed the previous corpectomy and fusion construct is unknown to this reviewer but with the hardware failure there is much concern regarding the integrity of the previous constructs as far as the fusion integrity.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
Reference: ODG-TWC cervical spine