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ФЕДЕРАЛЬНЫЙ ЦЕНТР НЕЙРОХИРУРГИИ НОВОСИБИРСК

СибНейро

RESULTS OF SURGICAL TREATMENT OF DEGENERATIVE LUMBAR SPINAL STENOSIS OF ELDERLY PATIENTS

Khalepa R., Kalinovskiy A., Klimov V., Vasilenko I., Konev E.

Federal Neurosurgical Center of Novosibirsk

RELEVANCE OF THE PROBLEM

Degenerative changes of lumbar spine – 95–98 % of elderly people

(Andrei F. Joaquim et al. ArqNeuropsiquiatr. – 2009)

Lumbar spinal stenosis is the most frequent cause of surgical treatment on the spine in patients older than 65 years.

(Rolf Kalff et al Deutsches Arzteblatt Int. Sep. – 2013)

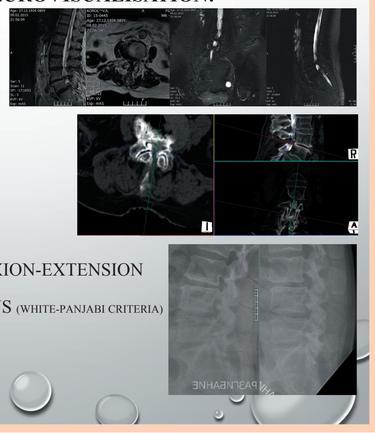
MATERIALS AND METHODS

2013–2015 years

- 278 patients of elderly and senile patients with lumbar spinal stenosis
- 82 males (28%) 196 females (72%)
- The mean patient's age – 66 years

METHODS

- **NEUROLOGICAL STATUS**
- **SCALES AND QUESTIONNARIES:**
  - VAS
  - ODI
  - SF36 (MENTAL HEALTH, PHYSICAL HEALTH)
- **NEUROVISUALISATION:**
  - MRI
  - CT
  - FLEXION-EXTENSION X-RAYS (WHITE-PANJABI CRITERIA)



GROUPS OF PATIENTS

Surgery of lateral and central stenosis

Lateral stenosis 164 (57%)

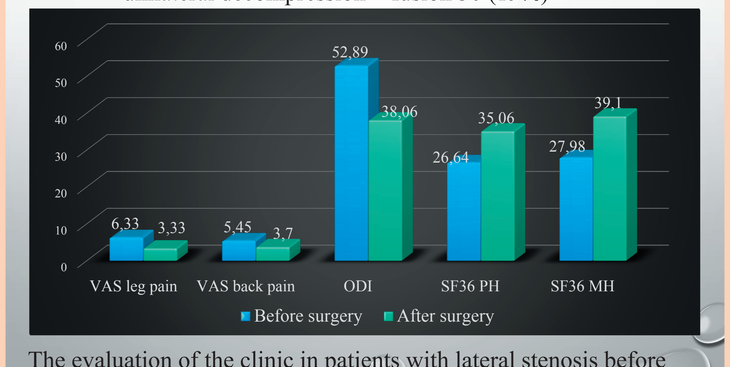
- Unilateral decompression 134 (81%)
- Instability - unilateral decompression + fusion 30 (19%)
  - Plif 17 (56%)
  - Tlif 13 (44%)

Central stenosis 114 (43%)

- Over the top bilateral decompression 49 (43%)
- Instability - bilateral decompressioin + fusion 65 (57%)
  - Plif 41(63%)
  - Tlif 24 (37%)

LATERAL STENOSIS (N 164):

- unilateral decompression 134 (81%)
- unilateral decompression + fusion 30 (19%)

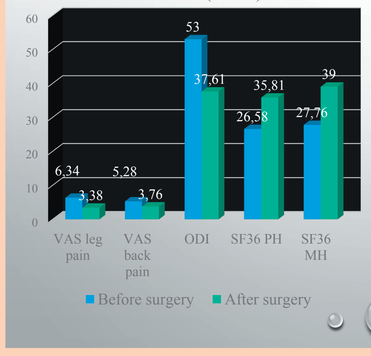


The evaluation of the clinic in patients with lateral stenosis before and after surgery in 12 months

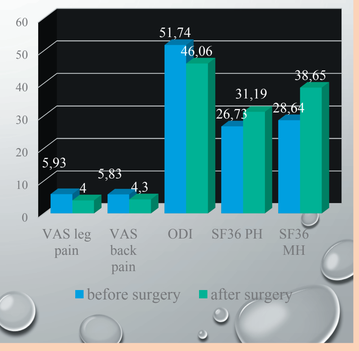
N - 164

DECOMPRESSIVE AND DECOMPRESSIVE WITH FUSION SURGERY FOR LATERAL STENOSIS

Unilateral decompression N 134 (81%)

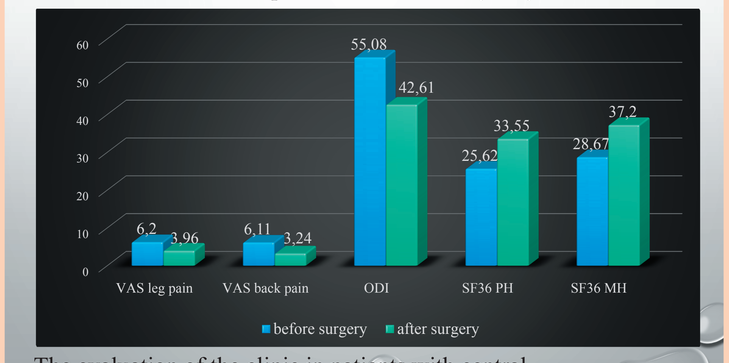


Unilateral decompression with fusion N 30 (19%)



CENTRAL STENOSIS (N 114):

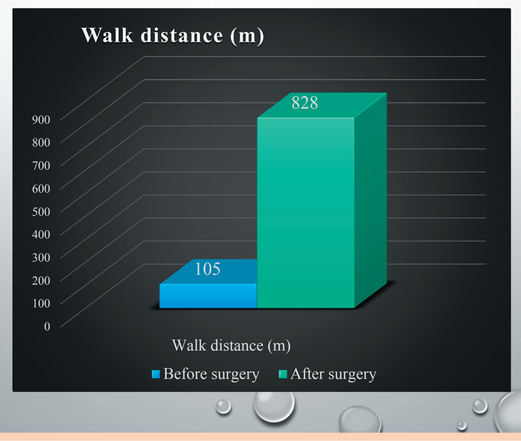
- bilateral over the top decompression 49 (43%)
- bilateral Decompression + fusion 65 (57%)



The evaluation of the clinic in patients with central stenosis before and after surgery in 12 months

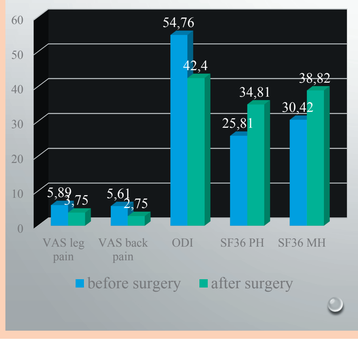
N – 114

CENTRAL STENOSIS AND NEUROGENIC CLAUDICATION

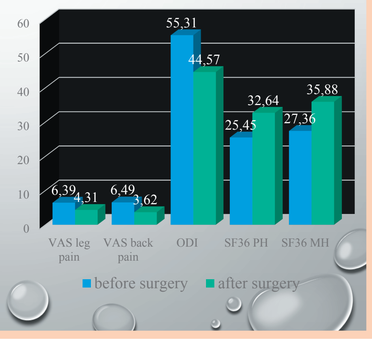


DECOMPRESSIVE AND DECOMPRESSIVE WITH FUSION SURGERY FOR CENTRAL STENOSIS

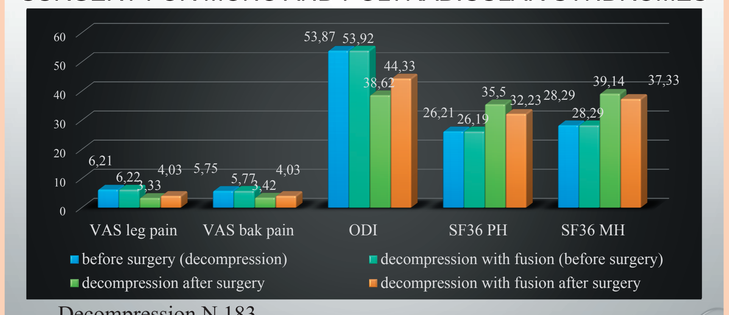
Bilateral decompression N – 49 (43%)



Bilateral decompression with fusion N – 65 (57%)



COMPARISON OF THE EFFECTIVENESS OF DECOMPRESSIVE WITH FUSION AND DECOMPRESSIVE SURGERY FOR MONO AND POLYRADICULAR SYNDROMES



Decompression N 183

Decompression with fusion N 95

Decompressive surgery performed better data in all parameters compared with decompression with fusion surgery

RESULTS IN 12 MONTHS AFTER SURGERY OF LUMBAR SPINAL STENOSIS OF ELDERLY PEOPLE

- Good results – 246 patients (88%) – decreased back and leg pain
- Decompressive surgery performed better data in all parameters compared with decompression and fusion surgery
- Complications - 35 (12,5%)
  - 25 – damage to the dural sac
  - 4 – epidural hematoma
  - 4 – worsening of neurological deficit
  - 1 – malposition pedicle screw system
  - 1 – purulent epiduritis

REOPERATIONS

Reoperations – 14 (5%):

- 9 cases – recurrence stenosis after decompression
- 1 case – the underestimation of the adjacent level clinic
- 1 case – failure of pedicle screw fixation system
- 2 cases – adjacent segment desease
- 1 case – incorrect interpretation of the clinic - extraforaminal compression of the root

CONCLUSIONS:

- The use of differentiated methods of microsurgical decompression in elderly patients with degenerative lateral and central spinal canal stenosis provides a better quality of life in 88% of patients.
- The fusion techniques do not improve the outcome of surgical treatment and should be used only in clinically significant instability.