

Postoperative Residual Numbness in Cervical Radiculopathy

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Purpose

The purpose of this study is to investigate the incidence of postoperative residual numbness and the factors which influence that in posterior foraminotomy for the cervical radiculopathy.

Materials

109 consecutive patients operated by posterior micro-foraminotomy for cervical radiculopathy

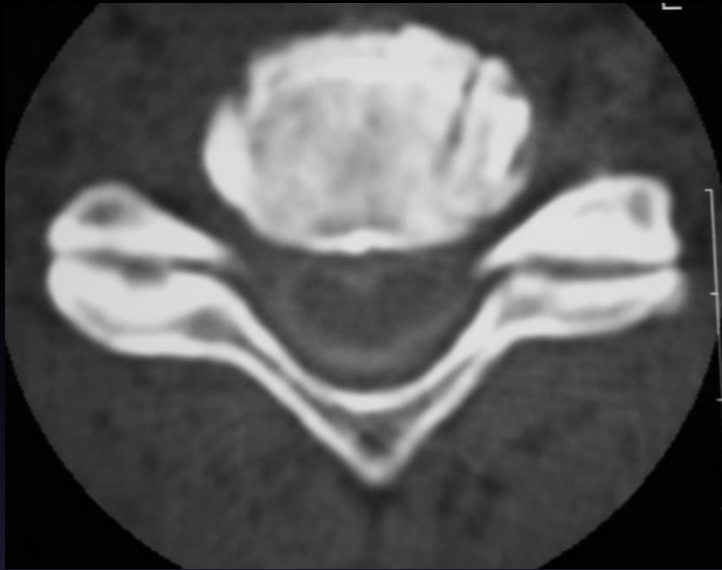
Male 78

Female 31

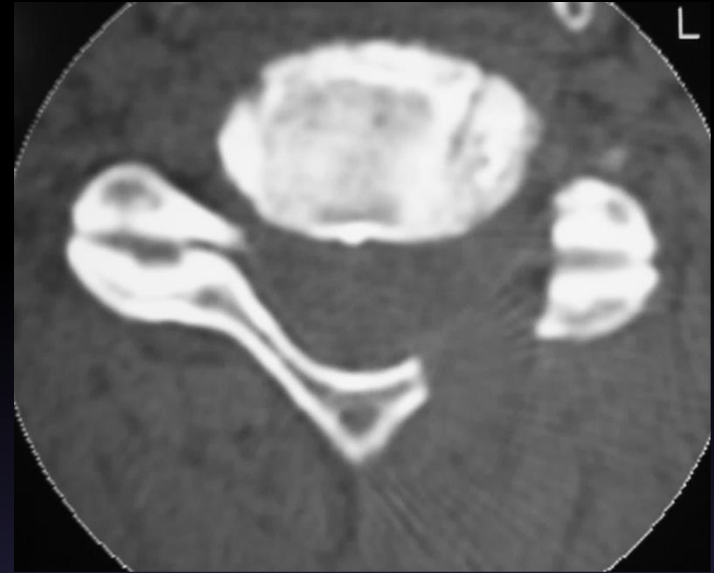
mean age at operation 54 years

(range 34-80)

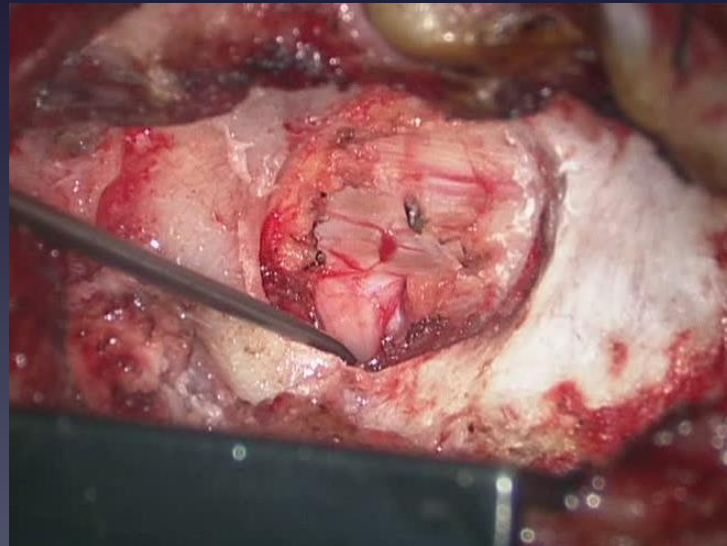
Posterior micro-foraminotomy



left C5/6 foraminal stenosis



postope



Etiology

foraminal stenosis 64

disc herniation 45

posterior micro-foraminotomy

1 level 80

2 levels 29

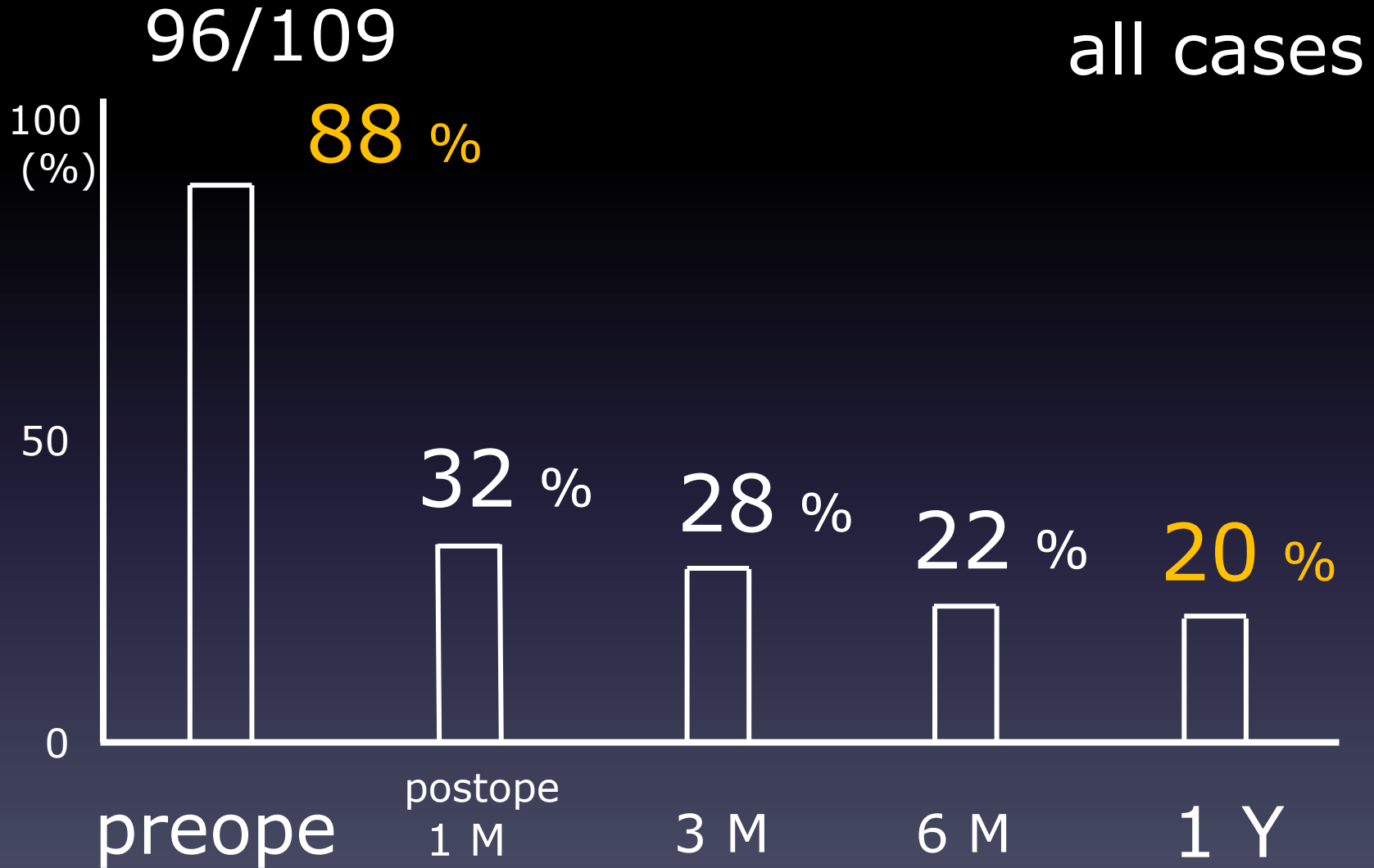
Numbness

preope

postope 3, 6 months and 1 year

association between 1 year numbness and
gender, age, disease duration, operated level,
preoperative radicular pain, muscle weakness,
sensory disturbance

Incidence of numbness



Between residual numbness and gender, age, disease duration, operated level

residual numbness

	+	-	
gender			
M	17	61	p=0.60
F	5	26	
age at operation (years)	56	53	p=0.15
disease duration (weeks)	21	18	p=0.41
operated level			
C6	6	27	p=0.03
C7	4	35	
C8	6	7	

Between residual numbness and preoperative radicular pain, muscle weakness, sensory disturbance

residual numbness

+ -

preoperative radicular pain (VAS)	71	71	p=0.90
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muscle weakness

severe - moderate	10	30	p=0.45
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mild - none	12	57
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sensory disturbance

+	16	43
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-	6	44
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p=0.05

Past reports about residual numbness

Harrop et al. (J. Neurosurg, 1990)

58% preoperatively

25% residual numbness postoperatively

Aldrich (J. Neurosurg, 2003)

79% preoperatively

37% residual numbness

This study

88% preoperatively

20% residual numbness

The results of this study showed that the C8 radiculopathy and sensory disturbance were related to the residual numbness

Why C8 radiculopathy?

Marzo et al, (Spine, 1987)

intradural connections between sensory rootlets

there are less connections of C8 rootlets than other C5, C6, C7 rootlets

Conclusion

To investigate the residual numbness after posterior foraminotomy for cervical radiculopathy, 109 operated patients were followed.

The incidence of residual numbness was 20% at one year after operation.

The presence of preoperative sensory disturbance and C8 radiculopathy were related to the residual numbness.

Disclosure no conflict of interest