

Benefits of RUSH score in neck of femur fractures



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INTRODUCTION

- ❑ Union in neck of femur fractures - **difficult to assess** on X-rays in presence of cancellous screws.

- ❑ The Radiological union score for hip (RUSH)
 - An **objective method** to assess healing of hip fractures
 - Needs to be correlated to a clinical score.

- ❑ The Harris Hip Score
 - Evaluates **clinical outcome**.
 - Assess - pain, function, absence of a deformity and range of motion.

AIM

To evaluate the role of RUSH score in neck of femur fracture cases and its correlation with clinical outcome.

METHODS

- Observational study: 18 patients
- Age 18 to 60 years
- Postoperative cases of neck of femur fractures
- Follow up at 2, 6, 12, 18, 24 weeks for X-rays and Harris hip score.
- Two radiographs of hip were obtained at each visit :
 1. Anteroposterior view – for Medial and Lateral cortex
 2. Lateral view – for Anterior and Posterior cortex

RUSH scoring

Radiographs are assessed in following manner and score (1- 3) is given :

All 4 cortices

1. Cortical bridging
2. Cortical fracture line disappearance

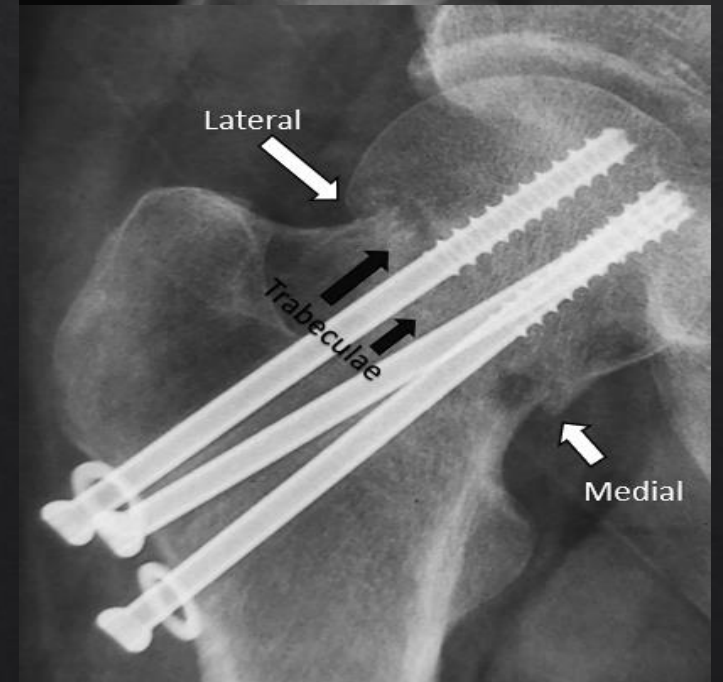
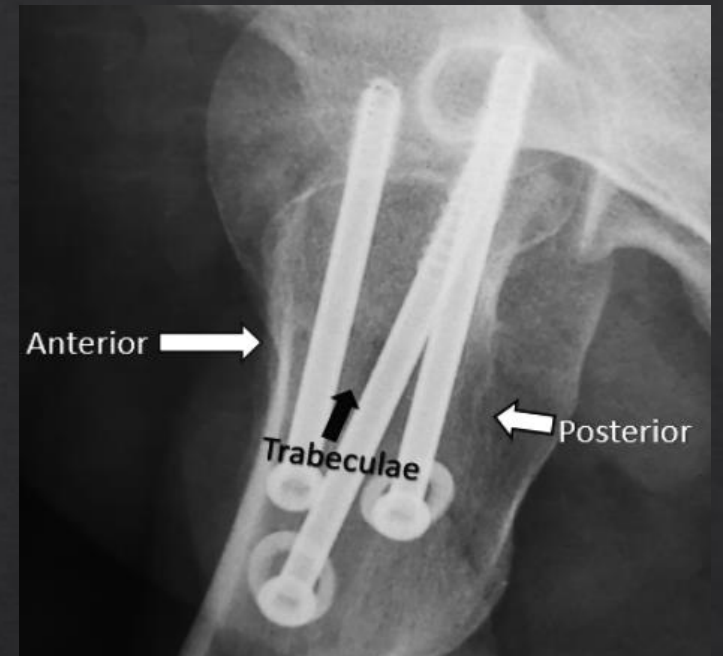
Trabecular region

1. Trabecular consolidation
2. Trabecular fracture line disappearance.

Minimum score – 10

Maximum score – 30

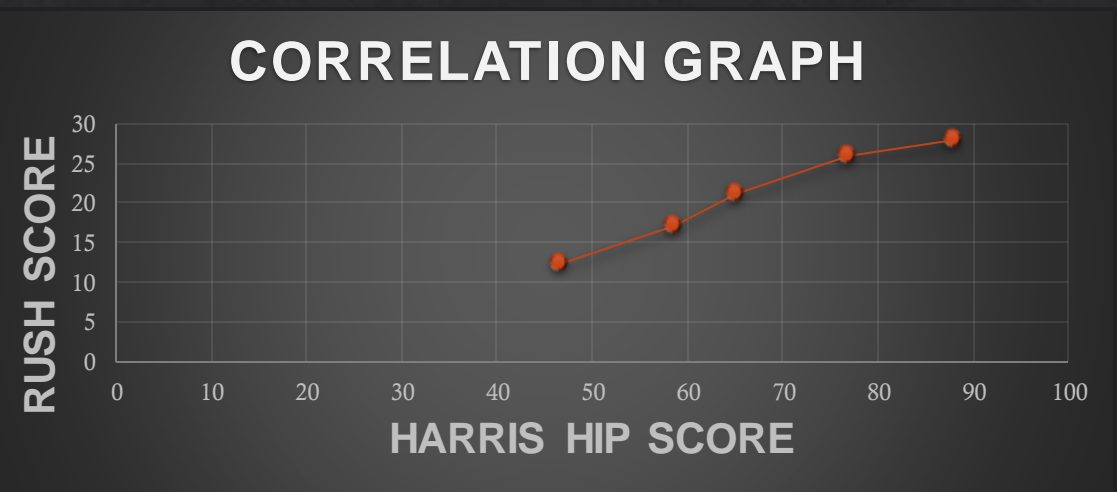
A score more than 18 suggests fracture union.



RESULTS

- In our study, **50%** cases at 6 weeks and **90 %** cases at 12 weeks showed **RUSH score more than 18** suggestive of fracture union.
- RUSH score and Harris hip score showed a Pearson correlation coefficient of 0.98

RUSH score	RUSH score		Harris hip score	
	Mean	SD	Mean	SD
2 weeks	12.40	2.98	46.60	7.72
6 weeks	17.20	2.93	58.50	5.39
12 weeks	21.20	3.25	65.01	7.83
18 weeks	25.80	4.39	76.80	5.32
24 weeks	28.01	2.44	88.01	5.67



CONCLUSION

RUSH score correlates with clinical outcome in patients with neck of femur fracture and is beneficial in objective evaluation of fracture union.