DOES LANDMARKS USED IN THE MODIFIED SCHOBER TEST COVER THE ENTIRE LUMBAR SPINE? PROPOSAL FOR A NEW MARKING PROCEDURE

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Purpose The aim of this study was to compare the validity of the Modified Schöber Test (MST) to a New Test based on different cutaneous marks by investigating (by means of MRI) if the distance between these landmarks cover the complete lumbar spine

Method

80 Patients with low back pain having a lumbosacral MRI prescription were included in the study

Radiopaque markers were placed:

- for the MST (n=80/80): 10 cm above (superior point) of the lumbosacral junction, identified by palpation, and 5 cm below (inferior point)

- for the New Test (n=52/80): at a point 5 cm below of the line passing through the inferior margin of the posterior superior iliac spines (inferior point) as well as at a point (superior point) corresponding to 30% of the distance between this inferior point and C7

The subsequent imaging examination was performed in a supine position

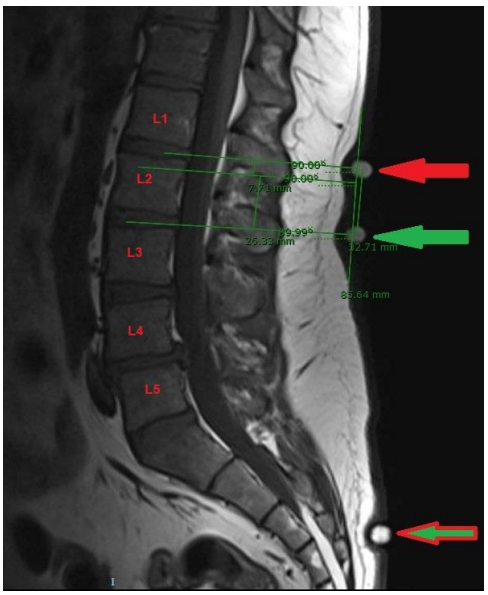

Fig 1: Localization of the superior marking on MRI for MST (green arrow) and new test (red arrow). In this participant, the inferior marking (green/red arrow) was the same

Test	> L1	L1	< L1
Schöber M n=80	7 (8,75%)	33 (41,25%)	40 (50%)
New Test n=52	24 (46,15%)	28 (53,85%)	0 (0%)

Table 1: Localization of the superior marking regarding L1

Results

For the MST, the superior point was on (41,25%), above (8,75%) or below (50%) the spinous process of L1

For the New Test, 100% of the superior skin markers were on (53,85%) or above (46,15%) L1

Inferior points localization, for both tests, depending on the inclination of the sacrum and palpatory difficulties (therapist's experience, patient's BMI,…) [1, 2]

Conclusion

The New Test presented in this study might be more valid than the traditional MST to reflect the coverage of the full lumbar spine and therefore its mobility

[1] O. Merz, U. Wolf, M. Robert, V. Gesing, M. Rominger. Validity of palpation techniques for the identification of the spinous process L5. Manual Therapy 18 (2013) 333-338
[2] E.V. Billis, N.E. Foster, C.C. Wright. Reproducibility and repeatability: errors of three groups of physiotherapists in locating spinal levels by palpation. Manual Therapy (2003) 8(4), 223–232