

**KORELASI KEKAKUAN MUSKULUS EXTENSOR SUPERFISIALIS
SERVIKAL MENGGUNAKAN *SHEAR WAVE ELASTOGRAPHY*
DENGAN INDEKS DISABILITAS PADA PASIEN NYERI LEHER**

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INTISARI

Latar Belakang: Nyeri leher memiliki angka morbiditas yang tinggi di seluruh dunia. Penyebab nyeri leher terkait proses degeneratif tulang dan kelainan pada otot extensor servikal mungkin dapat berhubungan dengan proses awal nyeri leher. Kekakuan otot skeletal dan keterbatasan gerak pada pasien nyeri leher dapat mengakibatkan disabilitas dan secara signifikan mempengaruhi kualitas hidup penderitanya.

Tujuan: Mengetahui korelasi antara kekakuan muskulus extensor superfisialis servikal menggunakan *shear wave elastography* (SWE) dengan indeks disabilitas pada pasien nyeri leher

Metode: Penelitian analitik observasional dengan desain *cross sectional*. Data penelitian diperoleh secara prospektif dari pemeriksaan SWE, data rekam medis, dan analisis ulang pemeriksaan MRI servikal. Analisis korelasi dilakukan pada skor elastisitas muskulus extensor superfisialis dengan indeks disabilitas.

Hasil: Berdasarkan 31 orang pasien, didapatkan mayoritas berjenis kelamin perempuan (74,2%), rata-rata usia 45-60 tahun (58,1%), memiliki indeks massa tubuh *overweight* (45,2%) serta disabilitas index ringan dan sedang. Terdapat korelasi yang signifikan antara *misalignment* dengan indeks disabilitas ($p < 0,05$), serta terdapat korelasi kekakuan muskulus sternokleidomastoideus sinistra dengan indeks disabilitas ($p = 0,018$; $r = 0,423$).

Kesimpulan: Terdapat korelasi antara kekakuan muskulus sternokleidomastoideus sinistra dengan indeks disabilitas. Tidak terdapat korelasi antara muskulus extensor superfisialis servikal lain dengan indeks disabilitas.

Kata Kunci : Nyeri Leher, MRI Servikal, Indeks Disabilitas, *shear wave elastography*

CORRELATION OF CERVICAL SUPERFICIALIS EXTENSOR MUSCLE STIFFNESS USING SHEAR WAVE ELASTOGRAPHY WITH DISABILITY INDEX IN NECK PAIN PATIENTS

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ABSTRACT

Background: Neck pain has a high morbidity rate worldwide. The causes of neck pain related to bone degenerative processes and abnormalities in the cervical extensor muscles may be related to the initial process of neck pain. Skeletal muscle stiffness and limited mobility in patients with neck pain can result in disability and significantly affect the quality of life of sufferers.

Objective: To determine the correlation between cervical superficial extensor muscle stiffness using shear wave elastography (SWE) with the disability index in patients with neck pain.

Method: Observational analytical study with a cross-sectional design. The research data were obtained prospectively from SWE examinations, medical record data, and re-analysis of cervical MRI examinations. Correlation analysis was performed on the superficial extensor muscle elasticity score with the disability index.

Results: Based on 31 patients, the majority were female (74.2%), the average age was 45-60 years (58.1%), had an overweight body mass index (45.2%) and mild and moderate disability index. There was a significant correlation between misalignment and disability index ($p < 0.05$), and there was a correlation between stiffness of the left sternocleidomastoid muscle and disability index ($p = 0.018$; $r = 0.423$).

Conclusion: There is a correlation between the stiffness of the left sternocleidomastoid muscle and the disability index. There is no correlation between other superficial cervical extensor muscles and the disability index.

Keywords : Neck Pain, Cervical MRI, Disability Index, Shear Wave Elastography