

## INTISARI

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D III FISIOTERAPI

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APLIKASI *ULTRASOUND* DAN LATIHAN HOLD RELAX TERHADAP PENURUNAN NYERI PADA KONDISI *DE QUERVAIN SYNDROME DEXTRA*

**Latar Belakang dan Tujuan Penulisan :** Seseorang yang melakukan aktivitas terlalu lama dapat menyebabkan kontraksi otot ibu jari yang berlebihan secara berulang pada otot-otot penggerak ibu jari tangan karena adanya *inflamasi* otot tersebut sehingga memicu muncul respon nyeri, hal ini dikaitkan dengan perkembangan penyakit *De Quervain Syndrome*. Problematika yang terjadi pada *De Quervain Syndrome* diantaranya: adanya nyeri pada ibu jari tangan dan penurunan lingkup gerak sendi oleh karena keterbatasan gerak. Tujuan dari penulisan karya tulis ilmiah ini untuk mengurangi keluhan yang dirasakan seseorang dapat diberikan modalitas terapi seperti *ultrasound* pada otot yang dapat mengurangi nyeri serta terapi latihan berupa *hold relax exercise* dapat meningkatkan LGS ibu jari pada kondisi *De Quervain Syndrome*

**Metode Penanganan Kasus :** Pada laporan karya tulis ilmiah ini, penulis memberikan beberapa tindakan pada sampel penelitian Nn. D meliputi modalitas fisioterapi berupa *ultrasound* serta terapi latihan berupa *hold relax exercise* pada kondisi *De Quervain Syndrome* untuk instrument pemeriksaan nyeri menggunakan *visual analogue scale* (VAS) dan pengukuran lingkup gerak sendi menggunakan goniometer untuk gerakan *flexi-extensi*, tindakan terapi dilakukan sebanyak 6x terapi dari tanggal 10 Februari 2023 sampai 25 Februari 2023

**Hasil Penelitian :** *Ultrasound* dan *hold relax exercise* merupakan salah satu modalitas fisioterapi untuk menangani kasus *De Quervain Syndrome*, setelah dilakukan tindakan fisioterapi sebanyak 6x didapatkan hasil adanya penurunan nyeri gerak T1 = 6 hingga T6 = 0,5; nyeri tekan T1 = 4 hingga T6 = 0,5; dan nyeri diam T1 = 1 hingga T6 = 0. Dan pengukuran lingkup gerak sendi pada gerakan *flexi thumb* dengan nilai T1 = 60° hingga T6 = 75°, pada gerakan *extensi thumb* dengan nilai T1 = 20° hingga T6 = 30°. Pemberian *Ultrasound* dapat mengurangi nyeri yang dihasilkan dari efek mekanis (*micromassage*) memberikan efek vasodilatasi sehingga terjadi regenerasi jaringan yang menyebabkan adanya penurunan nyeri. Pemberian *hold relax exercise* dapat meningkatkan lingkup gerak sendi oleh karena adanya kontraksi *isometric* dan penguluran sehingga terjadi perubahan panjang otot.

**Kesimpulan dan Saran :** Setelah diberikan tindakan fisioterapi sebanyak 6x tindakan, didapatkan hasil berupa penurunan nyeri dengan pemberian *ultrasound* dan peningkatan lingkup gerak sendi dengan pemberian. Saran dari penulis karya tulis ilmiah ini jika terjadi kondisi *de quervain syndrome* bisa dilakukan tindakan fisioterapi berupa *ultrasound* dan latihan *hold relax*.

**Kata kunci:** *De Quervain Syndrome, Ultrasound, Hold Relax Exercise*

## **ABSTRAK**

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### APPLICATION OF *ULTRASOUND AND HOLD RELAX EXERCISES* TO DECREASE PAIN IN *DE QUERVAIN SYNDROME DEXTRA* CONDITIONS

**Background and Purpose of Writing:** A person who performs activities for too long can cause repetitive excessive contraction of the thumb muscles in the muscles that drive the thumb of the hand due to inflammation of the muscles, triggering a pain response. It is associated with the development of De Quervain Syndrome disease. Problems that occur with De Quervain Syndrome include: pain in the thumb and decreased joint scope of motion due to limited motion. The purpose of writing this scientific paper is to reduce the complaints that a person feels can be given therapeutic modalities such as ultrasound on muscles that can reduce pain and exercise therapy in the form of hold relax exercise can increase the LGS of the thumb in De Quervain Syndrome conditions.

**Case Handling Method:** In this scientific paper report, the author provides several actions on the research sample of Ms. D including physiotherapy modalities in the form of ultrasound. D includes physiotherapy modalities in the form of ultrasound and exercise therapy in the form of hold relax exercise in De Quervain Syndrome conditions for pain examination instruments using a visual analogue scale (VAS) and measurement of the scope of joint motion using a goniometer for flexi-extension movements, therapeutic action is carried out as much as 6x therapy from February 10, 2023 to February 25, 2023.

**Research Results:** Ultrasound and hold relax exercise are one of the physiotherapy modalities to treat cases of De Quervain Syndrome, after 6x physiotherapy actions were carried out, the results obtained a decrease in motion pain T1 = 6 to T6 = 0.5; tenderness T1 = 4 to T6 = 0.5; and silent pain T1 = 1 to T6 = 0. And measurement of the scope of joint motion in thumb flexion movements with a value of T1 = 60 ° to T6 = 75 °, in thumb extension movements with a value of T1 = 20 ° to T6 = 30°. Ultrasound administration can reduce pain resulting from mechanical effects (micromassage) providing a vasodilating effect so that tissue regeneration occurs which causes a decrease in pain. Giving hold relax exercise can increase the scope of joint motion due to isometric contraction and stretching so that changes in muscle length occur.

**Conclusions and Suggestions:** After being given 6x physiotherapy actions, the results were obtained in the form of decreased pain with ultrasound and increased joint scope of motion with administration. Suggestions from the authors of this scientific paper if there is a condition of de quervain syndrome can be done physiotherapy actions in the form of ultrasound and hold relax exercises.

**Keywords:** *De Quervain Syndrome, Ultrasound, Hold Relax Exercise*