

## KORELASI ANTARA RASIO TORG PAVLOV DAN DERAJAT STENOSIS CANALIS SPINALIS PADA *CERVICAL SPONDYLOSIS* *MYELOPATHY*

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### INTISARI

**Latar Belakang:** *Cervical spondylosis myelopathy (CSM)* merupakan sindrom klinis sekunder akibat penekanan *medulla spinalis* oleh karena perubahan degeneratif. Kondisi ini meningkat seiring bertambah usia dengan insidensi terbanyak pada populasi usia 55 tahun atau lebih. Pengukuran Torg Pavlov merupakan salah satu metode dalam menilai stenosis canalis spinalis yang dilakukan pada radiografi lateral cervical. MRI merupakan modalitas baku emas dalam menilai kejadian dan menentukan derajat stenosis canalis spinalis yang bermanfaat dalam manajemen terapi.

Namun ketersediaan MRI masih terbatas, sehingga diperlukan alat skrining awal dalam menilai kejadian dan derajat stenosis canalis spinalis pada CSM

**Tujuan:** Penelitian ini bertujuan mengetahui adanya korelasi antara rasio Torg Pavlov dan derajat stenosis canalis spinalis pada cervical

**Metode:** Penelitian ini merupakan jenis penelitian uji analitik komparatif dengan desain penelitian *cross sectional*. Pengambilan data dilakukan secara retrospektif dari data sekunder pasien dengan klinis *CSM* yang dilakukan pemeriksaan radiografi lateral cervical dan MRI cervical di Instalasi Radiologi RSUP Dr. Sardjito Yogyakarta pada bulan Januari 2018 sampai Desember 2022. Pengambilan sampel dilakukan secara *consecutive non-random sampling*. Subjek terpilih sesuai dengan kriteria inklusi dan eksklusi

**Hasil:** Jumlah sampel 50 subjek. Terbanyak jenis kelamin laki – laki yaitu 27 subjek (54%). Rerata usia adalah 55,4 tahun. Sebagian besar subjek (74%) melibatkan multilevel dengan level C4 dan 5 merupakan segmen yang paling banyak terlibat. Hasil uji Spearman didapatkan nilai  $p = 0,001$  ( $p < 0,005$ ) dan  $r = -0,936$  yang menunjukkan korelasi negatif yang signifikan antara rasio Torg-Pavlov dan derajat stenosis canalis spinalis.

**Kesimpulan:** Terdapat korelasi negatif yang signifikan antara rasio Torg-Pavlov dan derajat stenosis canalis spinalis. Variabel jenis kelamin dan usia bukan faktor prediktor derajat canalis stenosis spinalis.

**Kata kunci:** Torg Pavlov, stenosis canalis spinalis cervical, *cervical spondylosis myelopathy*

## CORRELATION BETWEEN THE PAVLOV TORG RATIO AND THE DEGREE OF SPINAL CANAL STENOSIS IN CERVICAL SPONDYLOSIS MYELOPATHY

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### ABSTRACT

**Background:** Cervical spondylosis myelopathy (CSM) is a clinical syndrome secondary to spinal cord compression due to degenerative changes. This condition increases with age with the highest incidence in the population aged 55 years and over. Pavlov's Torg measurement is a method of assessing spinal canal stenosis performed on cervical lateral radiographs. MRI is the gold standard modality in assessing the incidence and determining the degree of spinal canal stenosis which is useful in therapeutic management. However, the availability of MRI is still limited, so an initial screening tool is needed to assess the incidence and degree of spinal canal stenosis in CSM.

**Purpose:** This study aims to determine the correlation between Torg Pavlov's ratio and the degree of cervical spinal canal stenosis

**Methods:** This research is a comparative analytic test with a cross-sectional design. Data collection was carried out retrospectively from secondary data of patients with clinical CSM who underwent cervical lateral radiography and cervical MRI examinations at the Radiology Installation of RSUP Dr. Sardjito Yogyakarta from January 2018 to December 2022. Sampling was carried out using consecutive non-random sampling. Subjects were selected according to the inclusion and exclusion criteria

**Results:** The number of samples is 50 subjects. Most of the male gender is 27 subjects (54%). The mean age is 55.4 years. Most of the subjects (74%) involved multilevels with levels C4 and 5 being the most involved segments. The Spearman test results obtained  $p = 0.001$  ( $p < 0.005$ ) and  $r = -0.936$  which showed a significant negative correlation between the Torg-Pavlov ratio and the degree of spinal canal stenosis.

**Conclusion:** There is a significant negative correlation between the Torg-Pavlov ratio and the degree of spinal canal stenosis. Gender and age are not predictors of the degree of spinal canal stenosis.

**Keywords:** Torg Pavlov, cervical spinal canal stenosis, cervical spondylosis myelopathy