Peran neurological soft signs dalam diagnosis developmental coordination disorder pada anak usia sekolah dasar = Neurological soft signs in the diagnosis of developmental coordination disorder in elementary school children

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Abstrak

Developmental coordination disorder DCD merupakan gangguan koordinasi motorik yang mengganggu prestasi akademik dan kegiatan olahraga. Penelitian ini bertujuan mengetahui nilai diagnostik neurological soft signs NSS dalam mendiagnosis DCD. Subjek terdiri atas 86 anak usia sekolah dasar suspek DCD dan 20 subjek kontrol. Semua subjek menjalani pemeriksaan fisis dan neurologis, anamnesis riwayat perkembangan, prestasi akademik, kesulitan menulis atau olahraga, screen time, dan aktivitas fisis, pemeriksaan antropometri, pemeriksaan NSS, serta pemeriksaan baku Bruininks-Oseretsky Test 2 Short Form BOT-2 SF . Subjek dengan skor BOT-2 SF below average dan well below average didiagnosis DCD. Median usia subjek 10,05 rentang 6,3 sampai 12,5 tahun; 67 adalah lelaki. DCD ditemukan pada 28,3 subjek. Sebanyak 67 subjek memiliki ge;1 NSS positif dan 41,5 memiliki ge;2 positif. NSS berhubungan bermakna dengan DCD apabila ge;2 positif p=0,047 . Nilai cut-off NSS optimal adalah ge;2 positif, dengan sensitivitas 57 dan spesifisitas 64 [area under the curve 0,639 IK95 0,512-0,767 ; p=0,026]. Dengan nilai cut-off ge;4, pemeriksaan ini memiliki sensitivitas 16,7 dan spesifisitas 99 . Pada 20 subjek DCD didapatkan komorbiditas neurodevelopmental lainnya. Sebagai simpulan, pemeriksaan NSS pada DCD merupakan pemeriksaan yang spesifik namun kurang sensitif. Diperlukan penelitian lebih lanjut untuk karakterisasi NSS pada komorbiditas yang dapat menyertai DCD.

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Developmental coordination disorder DCD is a disorder of motor coordination impairing academic and sports performance. We aimed to determine the value of neurological soft signs NSS in diagnosing DCD. Subjects were 86 DCD suspected elementary school children and 20 controls. All underwent physical and neurological examination, interview on developmental and academic history, difficulties in writing or sports, screen time, and physical activity, anthropometric measurement, NSS examination, and the standardized Bruininks Oseretsky Test 2 Short Form BOT 2 SF . Below average and well below average BOT 2 SF scores were classified as DCD. Subjects rsquo median age was 10.05 range 6.3 to 12.5 years 67 were male. DCD was found in 28.3 of subjects. Sixty seven percent and 41.5 of subjects had ge 1 and ge 2 positive NSS, respectively. More than 2 positive NSS was significantly associated with DCD p 0.047 . The optimal NSS cut off value was ge 2 sensitivity 57 specificity 64 area under the curve 0.639 95 CI 0.512 0.767 p 0.026 . Using a cut off value of ge 4, NSS had a sensitivity and specificity of 16.7 and 99 , respectively. Neurodevelopmental comorbidities were found in 20 of DCD subjects. In conclusion, NSS is a specific, but less sensitive, diagnostic test for DCD. Further studies are needed to characterize NSS in comorbid conditions.