

ELEKTRODIAGNOSTIKA MOTENJ MIKCIJE

SACRAL ELECTRODIAGNOSTICS IN PATIENTS WITH LOWER URINARY DYSFUNCTION

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Izvleček – Izhodišča. Elektrodiagnostična preiskava velja za nadaljevanje klinične nevrološke preiskave (1). Elektrodiagnostika križnega živčevja je smiselna le pri bolnikih z motnjami mikcije, iztrebljanja in spolnimi dejavnostmi, pri katerih sumimo, da je vzrok njihovih težav okvara živčevja (2). Razen tega, da elektrodiagnostična preiskava okvaro dokaže, jo pomaga tudi natančneje umestiti in določiti njeno težo. Namen naše raziskave je bil proučiti vzorec napotitev na elektrodiagnostično preiskavo križnega živčevja in najdbe preiskave pri bolnikih z motnjami mikcije.

Metode. Iz arhiva Inštituta za klinično nevrofiziologijo v Ljubljani smo izbrali vse preiskovance, pri katerih je avtor v času med majem 1997 in decembrom 2002 opravil elektrodiagnostično preiskavo križnega živčevja. Vključili pa smo le bolnike z motnjami mikcije (uhajanje ali zastanek seča), pri katerih smo opravili kvantitativno elektromiografijo (EMG) zunanje zapiralke zadnjika. Izmerjene vrednosti parametrov potencialov motoričnih enot (PME) pri bolnikih smo primerjali z našimi normativnimi vrednostmi, izmerjenimi pri 64 kontrolnih preiskovancih (3). Z uporabo opisne statistike smo proučili podatke o preiskovancih, specializiranosti napotnih zdravnikov, diagnozah, nevroloških simptomih in znakih ter elektrodiagnostičnih najdbah.

Rezultati. V opisanem obdobju je avtor opravil kvantitativni EMG zunanje zapiralke zadnjika pri 203 preiskovancih, od katerih jih je imelo motnje mikcije 127 (44% moških, starost 13–84 let). Uhajanje seča je bil edini simptom pri 63 bolnikih, zastanek seča je bil edini simptom pri 31, oboje, tako uhajanje kot tudi zastanek, pa je navajalo 35 bolnikov. Urologi so napotili na elektrodiagnostično preiskavo križnega živčevja 31 bolnikov z motnjami mikcije, družinski zdravniki 30, nevrologi 24, proktologi 14, ortopedi in travmatologi 13, ginekologi 8, preostalih 7 bolnikov z motnjami mikcije pa so napotili zdravniki ostalih specialnosti. Ob motnjah mikcije je 47 bolnikov navajalo uhajanje blata, 40 zaprtje, med 56 s podatki o spolnih dejavnostih jih je imelo motnje 36 (29 moških). Ob kliničnem pregledu smo pri 37 bolnikih našli senzibilitetne motnje perinealno. Kvantitativni EMG zunanje zapiralke zadnjika je bil patološki pri 39 bolnikih (31%). Od teh je imelo 26 bolnikov ob motnji mokrenja tudi moteno iztrebljanje ali motnje spolne dejavnosti, pri 16 od njih pa smo pri nevrološkem pregledu našli motnje senzibilitete perinealno. Le 1 bolnik (z operacijo medvretenčne ploščice v anamnezi) je imel ob izolirani motnji mikcije in povsem ohranjeni perinealni senzibiliteti patološki kvantitativni EMG zunanje zapiralke zadnjika. Med 87 bolniki, ki so imeli ob motnji mikcije bodisi dodatno križno motnjo (moteno iztrebljanje ali spolne motnje) ali pa moteno perinealno senzibiliteto pri kliničnem pregledu, smo pri 38 bolnikih (44%) našli patološki kvantitativni EMG. Med bolniki z abnormnim rezultatom elektrodiagnostične pre-

Key words: electrodiagnosis; indications; micturition disorders; sacral nervous system; referrals; urinary dysfunction

Abstract – Background. Electrodiagnostic studies are regarded as a continuation of clinical neurological examination (1). They are thought to be useful in patients with urinary, bowel or sexual dysfunction in whom peripheral sacral nervous system lesion is suspected (2). In addition to demonstrating the lesion, these tests can help localise it and assess its severity. The aim of the present study was to analyse the referral pattern and findings in the patients with lower urinary dysfunction referred for electrodiagnostic evaluation.

Methods. From the database of our tertiary referral centre, all examinees from May 1997 to December 2002 in whom the author performed sacral electrodiagnostic studies for routine diagnostic purposes, were identified. Patients with lower urinary dysfunction (incontinence or retention) in whom quantitative electromyography (EMG) of the external anal sphincter (EAS) muscle was performed, were included. The values of motor unit potential (MUP) parameters obtained in patients were compared with published normative data (3). Data on examinees, specialities of referring doctors, diagnoses, symptoms and signs on neurological examination, and electrodiagnostic findings were evaluated using descriptive statistics.

Results. During the defined period, sacral electrodiagnostic studies – including valid quantitative EMG of the EAS – were performed in 201 patients. Of them, 127 had lower urinary dysfunction (44% men, 13–84 years of age) and were thus eligible for the study. Urinary incontinence was the only complaint in 63 patients, urinary retention in 31, while both, incontinence and retention, was reported by 35. Thirtyone patients were referred by urologists, 30 by family doctors, 24 by neurologists, 14 by proctologists, 13 by orthopaedic or trauma surgeons, 8 by gynecologists, and remaining 7 by other physicians. In addition to lower urinary dysfunction, 47 patients reported faecal incontinence, 40 constipation, and 36 (29 men) of 56 with data available reported sexual dysfunction. On clinical examination, 37 patients had perianal sensory loss. Pathological quantitative EMG of the EAS was found in 39 patients (31%), of whom 26 also had additional non-urinary sacral dysfunction, and 16 patients also had perianal sensory loss on neurological examination. Only 1 patient (with a history of lumbar disc surgery) with both, isolated lower urinary dysfunction and normal perianal sensation, had abnormal electrophysiological findings. In a group of 87 patients with either additional non-urinary sacral dysfunction or perianal sensory loss, abnormal electrophysiological findings were demonstrated in 38 patients (44%). Among those with abnormal sacral electrodiagnostic findings, cauda equina lesion was diagnosed in 12, multi system atrophy in 7, polyneuropathy in 3, old obstetric injury in 2, and lesion due to (surgery for) anal prolapse in 1. In the remain-

iskave smo postavili diagnozo okvare kavde ekvine pri 12, multi-sistemske atrofije pri 7, polineuropatije pri 3, obporodne okvare pri 2 in okvare (po operaciji) prolapsa zadnjika pri 1. Pri preostalih 13 bolnikih nismo našli vzroka nevropatskim spremembam zunanje zapiralke zadnjika. Pri 3 od teh pa smo našli znake okvare osrednjega živčevja, 2 sta imela v preteklosti operacijo meduretenčne ploščice ledveno, ena bolnica je imela v preteklosti totalno histerektomijo, en bolnik je navajal bolečino v križu, eden pa je imel diagnozo Crohnova bolezen.

Zaključki. Naša študija je razkrila, da so motnje mikcije pogost razlog za naporitev na elektrodiagnostično preiskavo križnega živčevja v naš inštitut. Pri bolnikih z motnjami mikcije smo našli elektrodiagnostične abnormnosti praktično izključno, kadar so imeli še bodisi dodatne motnje iztrebljanja ali spolnih dejavnosti, ali pa smo ob kliničnem pregledu našli motnje senzibilitete perinealno. Prisotnost bodisi dodatne križne motnje ob motnji mikcije ali pa motene perinealne senzibilitete je občutljivo (senzitivno), vendar neznačilno (nespecifično) pri odkrivanju nevrogene križne motnje. Na osnovi naših najdb priporočamo, da vse bolnike z moteno mikcijo zdravniki vprašajo tudi po morebitnih motnjah iztrebljanja ali moteni spolnosti ter pri kliničnem pregledu preverijo zaznavo dotika perinealno. Elektrodiagnostične preiskave križnega živčevja so torej indicirane pri bolnikih bodisi s kombinacijo več križnih motenj ali pa z moteno perinealno občutljivostjo.

ing 13 patients no aetiology of neurogenic lesion was identified, but in 3 of them concomitant upper motor neurone signs were found, 2 patients had previous lumbar disc surgery, 1 had previous hysterectomy, 1 complained of lumbalgia, and in 1 Crohn's disease was diagnosed.

Conclusions. Lower urinary dysfunction was found to be a common reason for referral for sacral electrodiagnostic studies in our clinical setting. In patients with lower urinary dysfunction our study demonstrated electrodiagnostic abnormalities almost exclusively when either additional non-urinary sacral dysfunction was reported or perianal sensory loss was demonstrated on neurological examination. We propose that all patients with lower urinary dysfunction shall be asked about bowel and sexual dysfunction, and have perianal sensation tested. Non-urinary sacral dysfunction and abnormal sensation are sensitive but non-specific for the detection of a neurogenic sacral lesion. Hence, in patients who suffer from several sacral dysfunctions or have perianal sensory loss, electrodiagnostic studies are indicated.