EuroPainClinics
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Entrapment of Superficial peroneal nerve:

A CASE REPORT

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Procedures portfolio

Insurance → Advanced pain management and neuro-modulation center

Patients	Symptoms	Treatments	Referral (Remiss)
Back pain	radicular pain	PRT, pulsed RF	ORT
	facet, SI joint pain	injections, RF ablation	PHY
	disc pain	RF treatment, decompression, discectomy	NEU, Neurosurg.
	FBSS	pulsed RF, adhesiolysis, SCS	PSY
Head and neck pain	cluster headache	sphenopalatin block, pulsed RF, RF ablation	
	atypical facial pain		NEU
	trigeminal neuralgia	RF ablation (Gasserian ganglion)	PSY
	cervicogenic headache	RF ablation (third occipital nerve)	
Abdominal and pelvic pain	postcancer treatment pain	RF ablation	GYN
	chronic postoperative pain	neurolytic block	URO
	idiopatic pain	SCS and SNS	PSY
			SURG
Paliative oncologic pain	brachial plexus methastasis	cervical neurolysis	ONC
	pancreatic cancer pain	splanchnic, celiacus neurolysis	PSY
	pelvic cancer pain	superior hypogastric neurolysis	SURG
			URO, GYN
Joint pain	osteoarthrotic knee pain	bipolar pulsed intraarticular RF	ORT
		genicular nerves RF ablation	

A girl aged 14 - EPC clinic - June 2017

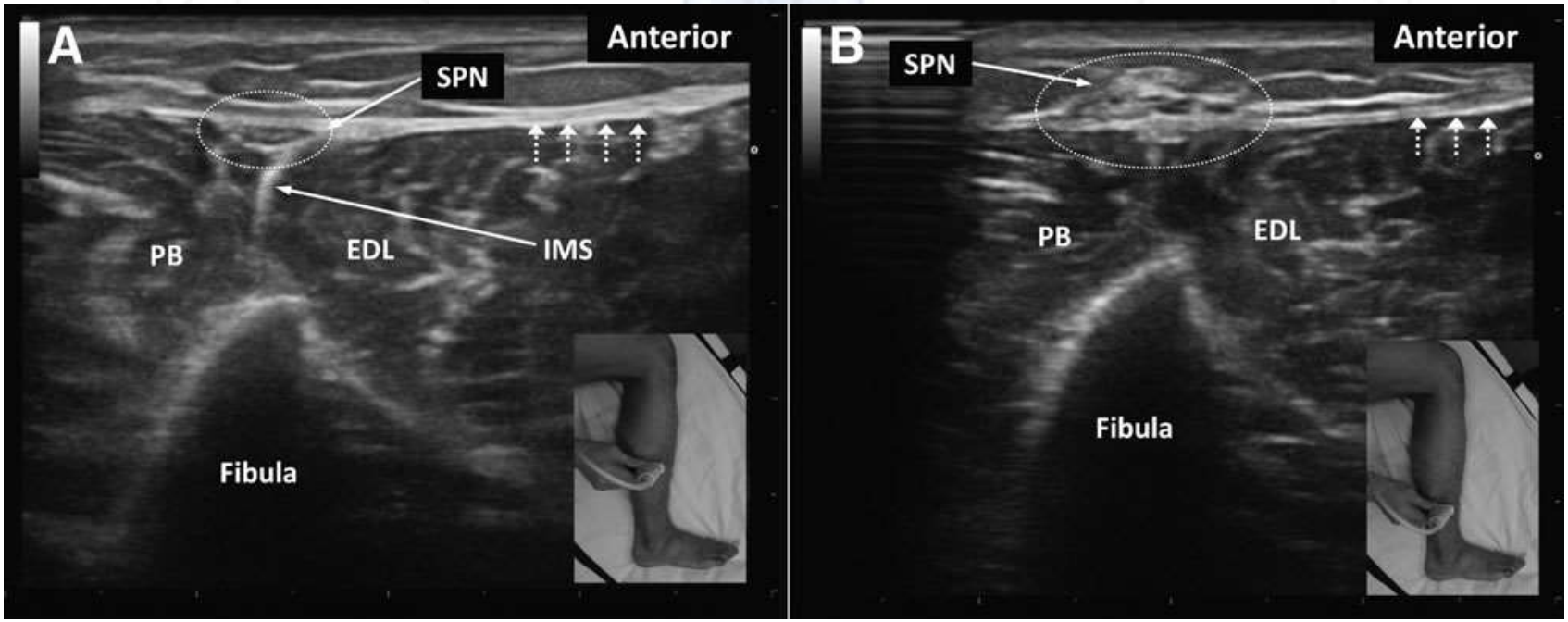
24 months previously she had first noticed a numb feeling along the dorsolateral area of the right foot and she had felt discomfort below the lateral malleolus with a dragging sensation and a burning pain shooting across the lateral side and the dorsum of the foot. This pain was aggravated by walking, standing and even worse at night.

She used crunches and wheelchair.

Basic examination showed **allodynia** on the dorsolateral aspect of the right foot, light sensory loss with pin-prick testing.

Ultrasound showed swelling of the superficial peroneal nerve at the distal part of the right calf (where nerve emerges from the fascia).

Pressure over the place increased the discomfort at the dorsolateral part of the foot.



Previous medical history

- **No trauma**, no co-morbities
- **Neurological examination** on the first visit without any significant findings
- **EMG** – nothing abnormal detected
- **MRI** – nothing significant detected, discrete metatarsal oedema, abnormal calcaneo-talar angle
- **Referred** to ortophedic surgeon

VYŠETRENÍ A KONTROLE
PREDLOŽTE TÚTO SPRÁVU

Lekárska správa - nález

Označenie zdrav. zariadenia, odd., pracovisko

pre .....

Priezvisko a meno .... 065 41 ..... rok nar. ..... 0355158441 2400 ..... č. prot. .....

Klin. dg. ..... M77.3 ..... Vykonané vyšetrenie ..... dňa 25.10.2016

TO: odoslana ortopedom za účelom RHB. Jedna sa o pac. po operaciach pre fract. pedis l. sin 2011, dig. manus l. dx 2014, st. po adenotomiam 2008,2010, 12.09.2016 -extirpatio fragmenti ossis calcanei l. dx. + op. sec. Steindler l. dx. /MF. / Bola hospital. na ortop. odd. v BA, zahajena liečba a chôdza o 2 NB, ale chôdzu nezvlada, pada na nohy, boli ju v obl. ĽBK. Postaviť sa na PDK nemôže- boli ju to.

*CT- obôch nôh- 09.09.2016 + 3 D- pri porovnaní obôch nôh -nález prakt. symetrický. Pritomna tvarova deformita talu na medialnej strane s tým , že klbne spojenie s calcaneom je atypicke. Calcaneus v ostrom uhle obojstranne s vyraznou klenbou. Na calcanei t.č. bez nálezu calcaru, bez nálezu pridavnych kostičiek.

Záver: vrodená deformita talu obojstranne so strmym postavením calcaneu obojstranne.

*EMG vyšetrenie -09.09.2016 -záver : normalný nález.

OBJ: Postoj na obe DK s odľahčením PDK, postaviť sa na PDK nemôže pre bolesť, lytko palp. nebolest., PF a DF palca vyb., symetr. bez senz. def. v obl. DK. Hypotrofia sv. PDK.

* DG:

M77.3 Ostroha pätovej kosti [kohútia ostroha]

12.09.2016 -extirpatio fragmenti ossis calcanei l. dx. + op. sec. Steindler l. dx. /MF. /

FT: MGT valec na obl. pravej päty pr. 4 -8x

Biolaser na obl. pravej päty-8x, od 02.11.2016 č.d. 16 od 07:00-07:30

Elektrodist. terapia pr. I-72 na obl. pravej päty-5x, potom kontrola.

IGAZ 4200

Lekárska správa - nález

Označenie zdrav. zariadenia, odd., pracovisko

pre .....

Priezvisko a meno ..... rok nar. 0355 ..... č. prot. .....

Klin. dg. M77.3 065 41 ..... Vykonané vyšetrenie ..... dňa 11.11.2016 2400

TO: Citi sa rovnako. Bolesť v obl. pravého chodidla pretrvava, pokúšala sa o chôdzu, síce s bolesťou ale asi 2 dni chodila, potom bolesť výrazná, znovu iba na vozíku, šetrenie nohy. Nález konzultovaný prim. OAIM MUDr J. Fedorkom s Dr. Frištákovou v DFNsP Bratislava - poslaný MR faxom - ďalší postup podľa zhodnotenia nálezu.

* Na MR známky edému kostnej drene všetkých tarzálnych kostičiek a oblasti rastovej štrbiny tibie a fibuly a II. MTT, s pronáciou calkaneu smerujúceho laterokraniálne a dorzoflexiou chrbta nohy, so zmnožením intraartikulárnej tekutiny.

OBJ: Postoj na obe DK s odľahčením PDK, postaviť sa na PDK nemôže pre bolesť, lytko palp. nebolest., PF a DF palca vyb., symetr. bez senz. def. v obl. DK. Hypotrofia sv. PDK.

* DG:

M77.3 St. po extirpatio fragmenti ossis calcanei l. dx.- 12.09.2016

M86.87 Osteomyelitida MTT I. dx. susp.

FT liečba u nas vybrata, ukončená. Hlási sa u OL.

DOPOR:Vhodne odborne ortop. konz. kontr. vyšetr. v DFNsP Bratislava.

Lekárska správa - nález

Označenie zdrav. zariadenia, odd., pracovisko

pre .....

Priezvisko a rr..... rok 0355 2400 ..... č. prot. .....

Klin. dg. ..... Vykonané vyšetrenie 10.02.2017 dňa .....

TO: vyšetrena v BA u neurologa-MRI vyšetr. bez zn. myelopatie. Psychol. nález-v norme, algeziologom - s odporučaním- suche teplo, šetrna stimulacia a RHB dla tolerancie s postupn. navyšovanim/nie do bolesti viac ako VAS 3/, rehabilit. lekar odporučil reumatol. vyšetr., kupelnu liečbu.
OBJ: Postoj na obe DK s odľahčenim PDK, postaviť sa na PDK nemôže pre bolesť, lytko palp. nebolest., PF a DF palca vyb., symetr. bez senz. def. v obl. DK. Hypotrofia sv. PDK.
* DG:
M77.3 St. po extirpatio fragmenti ossis calcanei l. dx.- 12.09.2016
Sudeckov sy
FT: cvič. za účelom post. našľapovania na prave chodidlo, do bolesti -10x, potom kontrola u nas.
DOPOR: vhodne odborne ortoped. vyšetrenie alebo chir. vyšetrenie za účelom zvaženia reoperacii.

Lekárska správa - nález

Označenie zdrav. zariadenia, odd., pracovisko

pre .....

Priezvisko a meno ..... 065 41 ..... rok nar. ..... 0355 2400 ..... č. prot. .....

Klin. dg. .....R52.9..... Vykonané vyšetrenie ..... dňa ...02.03.2017

TO: citi sa ešte horšie. Berie stále Tramal. Vyšetrena ortopedom-odporučene- pokračovanie v RHB podľa navodu vyšš. pracoviska. Vyšetrena v BA u neurologa-MRI vyšetr. bez zn. myelopatie, Psychol. nález-v norme, algeziologom - s odporučaním- suche teplo, šetrna stimulacia a RHB dla tolerancie s postupn. navyšovanim/nie do bolesti viac ako VAS 3/, rehabilit. lekar odporučil reumatol. vyšetr., kupelnu liečbu. LTV netoleruje počas cvičenia - údava bolesť v PBK, čl. klb.
OBJ: T.č. na obe DK nepostavi sa, je algicka, počas cvičenia - nie je možne vyšetriť dynamiku v PBK a chôdzu pre bolesť, lytko palp. nebolest., PF a DF palca vyb., symetr. bez senz. def. v obl. DK. Hypotrofia sv. PDK. Na vozik posadi sa s dopomocou inej osoby. Počas sedu na voziku- algicka. rr C5-C8, L2-S2 sym., vyb., Hommans bilat.- negat.
* DG:
R52.9 Bolesť, bližšie neurčená
FT liečba u nas ukončená. Hlási sa u OL ešte dnes.
DOPOR: zvážiť hospitalizáciu v KE na detsk. odd. za účelom kompl. vyšetrenia.

- On orthopedic examination 2 months later focuses on calcaneus bone
- RTG, MRI still without any significant findings
- Worsening of the pain symptoms over the dorsolateral aspect of the right foot
- The girl had difficulties to stand and walk, wheelchair and crunches
- Night pain, difficulties to sleep, loss of concentration during day time, light depression

- On orthophedic follow up 1 month later decision about surgical intervention (partial calcaneal resection)
- The surgery performed – calcaneus resection (op. sec. Steindler)
- No improvement of pain symptoms, additional pain at the surgical area
- Pregabalin 150mg x 2, Tramadol 300 mg/day, Paracetamol 1g/day with minimal effect on pain intensity (prescribed by neurologist)
- Still on wheelchair, crunches with short walks

18 months later orthopedic surgeon made

a diagnosis of Sudeck algodystrophy

(without any significant trofic changes)

The girl is depressed, wheelchair,

crunches, pain killers, …


The orthopedic surgeon
suggests AMPUTATION as a suitable solution

EuroPainClinics®
relief is our mission

The girl and parents advised to visit our clinic in order to **discuss SCS** as an alternative to amputation…

Examination in our clinic

Three provocation tests performed by **Bjorn Aasa**

A. Pressure is applied where the nerve emerges from the deep fascia with active dorsiflexion and eversion against resistance

B. Passive plantar flexion and inversion without local presure

C. Passive stretch, gentle percussion is applied over the nerve course (Tinel)

Increased pain and paresthesia on all 3 tests

- Ultrasound examination of the course of superficial peroneal nerve performed by myself and **prof. Håkan Alfredsson**
- Significantly increased diameter of the nerve found where the nerve emerges from the deep fascia
- EMG repeated with pathological findings on symptomatic leg (velocity 38 m/s)
- Diagnostic block under US guidence performed with 100% pain relief
- Local fasciotomy indicated and performed by prof. Alfredsson
- The patients walks home 2 hrs later without crunches

- Phone follow up 24 and 48 hrs later: significant pain relief at the foot, postprocedure pain at the incision area, light tingling at the dorsolateral area of the right foot
- The girl walks without crunches and doesn't use wheelchair any more
- Densitometry shows mild osteopenia of the right foot
- Physiotherapy suggested by Bjorn Aasa

The girl on 2 months follow up

no medication

The girl on 4 months follow up

no medication

EMG physiological on both sides

Entrapment of the superficial peroneal nerve was first described by Henry in 1945.

The symptoms are pain and sometimes sensory abnormality in the distribution of the nerve over the dorsum of the foot.

Nerve compression in patients with fascial defects explained by the normal increase in muscle relaxation pressure and intramuscular pressure at rest during and after exercise (Styf and Korner, 1986). This increase is sufficient to herniate muscle tissue and impinge upon or compress the nerve.

THANK YOU