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In vivo corneal confocal microscopy in diabetes: Where we are and where we can get

Ernesto Maddaloni, Francesco Sabatino

Abstract

1 *in vivo* corneal confocal microscopy is a novel, reproducible, easy and noninvasive technique that allows the study of the different layers of the cornea at a cellular level. As **13** cornea is the most innervated organ of human body, several studies investigated the use of corneal confocal microscopy to detect diabetic neuropathies, which are invalidating and deadly complications of diabetes mellitus. Corneal nerve innervation has been shown impaired in subjects with diabetes and a close association between damages of peripheral nerves due to the diabetes and alterations in corneal sub-basal nerve plexus detected by *in vivo* corneal confocal microscopy has been widely demonstrated. Interestingly, these alterations seem to precede the clinical onset of diabetic neuropathies, paving the path for prevention studies. However, some concerns still prevent the full implementation of this technique in clinical practice. In this review we summarize the most recent and relevant evidences about the use of *in vivo* corneal confocal microscopy for the diagnosis of peripheral sensorimotor polyneuropathy and of autonomic neuropathy in diabetes. New perspectives and current limitations are also discussed.

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作者: FRA Van den Bergh - 2013 - 被引用次数: 12 - 相关文章

2013年5月25日 - In the first part the variable anatomy of the **peroneal nerve** around the knee will Occasionally in **large** or long-standing **schwannomas** intralesional peroneal intraneural ganglion **cyst**: a rare **cause** of **drop foot** in a child.

Compression neuropathy of the peroneal nerve secondary ...

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作者: RJ Greer-Bayramoglu - 2008 - 被引用次数: 14 - 相关文章

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2008年3月11日 - Traumatic **causes** of nerve injury occur in association with ... Keywords: **Peroneal nerve**, Ankle dorsiflexors, **Foot drop**, Sciatic nerve injury ... The lateral location of the nerve fibers, tethering at the fibular head, and the **larger** size of the nerve palsy who underwent MRI, six patients had ganglion **cyst**, one ...



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Clinical applications of corneal confocal microscopy

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作者: M Tavakoli - 2008 - 被引用次数: 41 - 相关文章

Because, **corneal confocal microscopy** is a non invasive technique for **in vivo** ... Because the cornea is transparent, white light or more recently lasers **can** be used ... morphology in Bowman's layer of **diabetic** patients which **have** been related to **We have** also shown that corneal nerve fiber density improves with improved ...

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Our studies **have** shown that **corneal confocal microscopy** (CCM) **can** identify ... **We have** also shown that CCM relates to intraepidermal nerve fiber loss (12) and ...

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diabetic keratopathy and keratoepithelopathy **have** also become to the focus of attention ... **In vivo confocal microscopy** **can** help investigating the background and ... **We** also aimed to quantify the **corneal**