以CT引導脊柱小面關節內注射時針刺定位及注射體積之初步研究

A Preliminary Study of Needle Orientation and Injection Volume in Facet Intra-articular Injection under Computed Tomography-Guiding Technique for The Relief of Low Back Pain.

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摘要

腰權小面關節注射是治療小面關節症候群的常見技術，但其治療效果決定於正確可靠的關節腔內注射。傳統的X光透視引導術需要側轉病患身體，以便利用顯影劑確定注射針尖的位置，然而，我們在電腦斷層檢視(CT)下，發現退化的小面關節長出的骨刺，常常會遮蓋關節入口並阻礙注射針刺入關節。我們同時證實關節腔內注射0.5ml空氣，比起對比顯影劑有更好的顯影效果，同時可以增加注射藥物的劑量。本實驗證實了以CT輔助的小面關節內注射術比起傳統的X光透視引導術，可以有較優良的關節面顯影，正確的注射針定位，可避免對比顯影劑的副作用，及較高的成功比率。

Abstract

Lumbar facet joint injection has been a common technique for treatment of facet joint syndrome, but its therapeutic role depends on a reliable injection technique. In the standard fluoroscopy-guided method, an oblique placement of torso to the X-ray beam and confirmation of needle position by contrast-media arthrogram are necessary. However, we have shown that inward growth of osteophyte in degenerative facets often covered the inlet opening and obstructed the needle insertion into the capsule. We also demonstrated that small amount of air (0.5 ml), compared to the contrast

medium, could better delineate the entire facet joint structures (joint space and capsule) under computed tomography (CT) and allowed repeated injections to the same joint for correct placement. This investigation indicated that intra-articular injection under CT guidance has the advantages over conventional fluoroscopic method in having better visualization of the articular planes, more accurate orientation of the needle pathway, the benefit of air arthrogram, and increased success rate.