Study tests reliability of more accurate measure of patient pain

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A new study appearing in *Pain Practice* successfully established the reliability a newly developed device for assessing pain. This device is called the continuous pain score meter (CPSM). It enables continuous real time pain score measurement, which is used to obtain exact measurements of pain intensity in humans during the course of a procedure. The findings provide more detailed information on patients' pain perception and may lead to better pain management for certain clinical procedures.

The ability to accurately measure pain intensity, pain duration and the effect of analgesics is an important task in both medical practice and research. The sharp increase in present-day office procedures, without general anesthesia, has made this even more important. The CPSM procedure can be valuable to study pain intensity in clinical procedures that take between 1-30 minutes.

Currently, there are various validated instruments available to assess pain in patients. The visual analog score (VAS) is the most widely used scale. The VAS scale measures pain by a single score indicated by a patient the end of a procedure. It uses a scale that ranges from "no pain" to "worst imaginable pain." The VAS is frequently used for diagnostic and technical procedures to evaluate patient tolerance in an office setting.

This method, however, has three major disadvantages. If a procedure consists of multiple different actions, pain intensity may vary according to each action. This important information is not detected by a single

measurement afterwards. Second, pain intensity measurements after the procedure may be biased by the inaccuracy of the memory to recall pain sensations. Third, pain is by nature not a short, limited phenomenon; pain sensation does not suddenly stop after a stimulus, but gradually disappears, requiring continuous measurements in order to fully cover the pain sensation. With this new pain score meter it is possible to measure pain continuously throughout the procedure. In this way, a clinician gains more insight into the patients' pain perception.

The study used thirty-two healthy volunteers who received a reproducible pain stimulus at one-minute intervals. The stimulus was induced by a dolorimeter, an instrument that applies continuously increasing pressure, on the thumbnail and forearm, as these points are easily accessible and have a low pain threshold. During the stimulus, pain was continuously measured with the CPSM, providing values of peak continuous pain score (peak CPS) and area under the continuous pain score curve (AUC CPS).

More information:
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