

Protocol for SAM3D

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Introduction

For the past ten years, things have been going on in Rouen, at the Mathilde clinic. Gérard Di Mascio *, pugnacious, with a friend computer scientist, and now two, are developing a photographic system that can give 3D coordinates of any point on the skin, the SAM3D. Currently the result is rather impressive, in less than one minute, including shooting time, the results fall on the screen of the computer, to the tenth of a millimeter.

For the clinical research to be able to use this instrument a statistical study of the variations of position, during intervals of time, of a series of reference points recorded on subjects, standing upright quiet, is missing.

The two functions of the postural system

Two time intervals are to be studied: 5 seconds and 5 minutes which correspond to possible variations of position of the body due:

- to ventilation [5 sec.] (1, 2, 3)
- to venous return [5 min.] (4, 5, 6)

A sampling rate of 0.5 Hz for 300 seconds, this represents only 150 shots, so, apparently, no computer problem. It's playable.

Discussion

Since the discovery of the two functions of the postural system (6) the stabilometry is confronted with a problem: how to define today what we have always named: "The mean position of the center of pressure" without realizing that it was a myth? If we remember that a large number of stabilometric parameters are calculated from this mythical position, it helps us to realize the seriousness of the current crisis of stabilometry.

Would not the solution be based on "The mean position of the center of gravity" since now we know how to calculate its position (7)?

Then we can understand the theoretical interest of studies on displacements of the position of the center of gravity by techniques other than the force platform, such as SAM3D.

Conclusion

The discovery by the Russians and the Japanese of the dual function of the postural system (5) plunges the stabilometry into a major crisis that gives new importance to other posturography techniques.

There was a time when the international society was called "International Society of Posturography" in which Japanese and Europeans surrendered to delusions of imagination to invent all kinds of Posturography techniques !

Bibliographie

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