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The addition of EPAT to SVF is perceived to improve the treatment outcomes in severe degenerative joint conditions: A small personal series

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Stromal vascular fraction (SVF) was first isolated from adipose tissue around 1970. SVF has proved very effective to manage many hitherto difficulties or untreatable conditions, including severe degenerative joint disease (DJD), medically. Nonetheless, it has not been effective in every case, especially in the more severe cases of DJD, possibly reflecting the diversity of the pathology within each category. Extracorporeal Pulse Activation Technology (EPAT), alias dictus shock or Pressure Wave Therapy (ESWT), is a non-invasive technology platform of Storz Medical that employs acoustic pressure waves to affect a mechanic-transduction response at the cellular level, which leads to cell activation, improved metabolism, angiogenesis, neovascularization and improved healing. This has been used as a stand-alone modality for treating various musculoskeletal conditions in Germany over the past two decades. In a small series of patients with severe DJD who have either refused surgery or had undergone multiple unsuccessful surgeries, we found the addition of EPAT to the deployment of SVF intravenously as well as locally, were perceived to be highly effective in decreasing pain, reducing stiffness and increasing functionality. It was also perceived that giving 2-43 treatments of EPAT to the region in question, days apart and one treatment immediately before the SVF deployment, enhanced the benefit. This possibly recruited more local repair processes, attracting more regenerative cells, and releasing growth factors and cytokines for repair.

Biography

Hazem Barmada is a Cardiovascular & Thoracic Surgeon. He has completed his Graduation from St. Andrews and Manchester Universities in 1971 and 1974, respectively. He was active in Martial Arts in Britain from 1968 to 1984 and Medical Officer to the Martial Arts Commission and other major karate organizations in GB from 1974 to 1984. He is a Fellow of the Royal College of Surgeons of Edinburgh in General and Cardiothoracic Surgery and a Member of the Society of Thoracic Surgeons and American College of Phlebology. He has two patents and published a number of papers. His interests include "regenerative medicine and stem cell research, sports injuries and venous and lymphatic disease".

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