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Carboxytherapy and platelet rich plasma: New therapy for trigonitis, abacterial and interstitial cystitis

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Cystitis often appears even in absence of bacteria colonization. Trigonitis and interstitial inflammation are the most common morphological features of abacterial cystitis in young and post menopausal women. Arterial obstructive disease and bladder ischemia might play an important role in bladder dysfunction. Activated inflammatory cells produce radicals of Oxygen (ROS), NF-kB seems involved in ROS synthesis. Clinical studies have indicated that high CO₂ levels can impact upon peripheral tissue, reducing ischemia, responsible of recurrent inflammation and consequently reducing oxidative phenomena. Platelet-rich plasma (PRP) is a volume of fractionated plasma from the patient's own blood that contains platelet concentrate rich of alpha granules. PRP interacts with tissue repair mechanisms by placing supra-physiological concentrations of autologous platelets at the site of tissue damage. This study proposes a double PRP transvaginal injection followed by 15-20 weekly applications of carboxytherapy, using subcutaneous injections of sterile CO₂ gas. We have selected 10 women (50-70 years), affected by recurrent abacterial cystitis with pain and urge incontinence. All patients showed a subjective sensible reduction of symptoms. We especially noticed an improvement of urgency with positive impact with patient's quality of life. After 6 months all patients have neither inflammatory symptoms nor endoscopic evidence of trigonitis. No patients had side effects after the described procedure. Both carboxytherapy and PRP are safe procedures and show good know-how thanks for wide diffusion of aesthetic uses. Preliminary qualitative results could encourage the use of carboxytherapy and PRP in treatment of abacterial and interstitial cystitis.

Biography

Fabrizio Muzi has completed his studies as General Surgeon from Tor Vergata University of Rome. He works in the Department of Oncologic Urology as an Assistant of the Director Prof. Gaetano Tati. He has completed his Master's degree in Andrology from Pisa University and in Surgical Andrology from Trieste University. He has published some papers and participated in national congresses related about the use of gas therapy in urology.

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