

Mr YZ Almallah

Principle Investigator in Multi-Centre Trials

- Study 905-EC-002: Solifenacin in the Treatment of Urgency Symptoms of Overactive Bladder in a Rising-Dose, Randomised, Double-blind Trial (the SUNRISE Study).
- A multicenter, double blind, randomized, placebo-controlled, parallel-group, dose-response study of the safety and efficacy of a single treatment of BOTOX (Botulinum toxin type A) purified neurotoxin complex in patients with idiopathic overactive bladder with urinary urge incontinence.
- A Phase 2, randomised, double-blind, placebo-controlled trial to investigate the safety and efficacy of AV608 in subjects with idiopathic detrusor overactivity.
- Study 905-EC-003: Solifenacin succinate in a flexible dose regime with simplified bladder training versus Solifenacin succinate in a flexible dose finding regime alone in a prospective, randomised, parallel-group overactive bladder study (the SOLAR Study).

Publications

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Almallah YZ, El-Tahir A, Heys SD, Richardson S and Eremin O. Distal Procto-Colitis and n-3 Polyunsaturated Fatty Acids (n-3 PUFAs): The Mechanism(s) of Natural Cytotoxicity Inhibition. *European Journal of Clinical Investigation* 2000; 30:58-65.

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Almallah YZ and Miletic M. The Birmingham One Stop Bladder Assessment Clinic. *Urology News* 12(3):28-29 2008.

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Lynch C, Almallah YZ. Urinary incontinence in men-the forgotten gender. General Practice Update 2009; 2:29-31.

MD Thesis

A study of the effects of dietary supplementation with n-3 polyunsaturated fatty acids in patients with distal procto-colitis

**Doctor of Medicine
University of Aberdeen
December 2000**

It has been shown, both in vivo and in vitro, that ω -3 polyunsaturated fatty acids (ω -3 PUFAs) and their metabolites (prostaglandins and leukotrienes), given at certain doses and prolonged periods of supplementation, can significantly modulate immune reactivity. Their effect on cell membrane function and structure, alteration of intracellular regulatory mechanisms and cytokine production, is well documented.

In our study, ω -3 PUFA supplementation resulted in a significant improvement in patients' symptoms and clinical scores. Also there was a significant improvement in the sigmoidoscopic and histological scores after six months of supplementation with these fatty acids compared with placebo.

The improvement in the clinical, sigmoidoscopic and histological scores were associated with a significant reduction in the circulating numbers and function of NK and LAK cells, serum levels of leukotriene B₄ (LTB₄) and a reduction in the serum levels of a range of cytokines including interleukin 2 (IL2) and IL4, and the soluble receptor of IL2 (sIL2R), in addition to the reduction in IL6 and tumour necrosis factor α (TNF α). There was a concomitant and significant suppression of immune parameters in situ, in the form of a reduction in the number of CD3⁺ and HLA-DR⁺ cells and cells containing IgM in the mucosa of patients with procto-colitis receiving ω -3 PUFA supplementation.

The role of PUFAs in Urology

The role of arachidonic acid metabolites, especially prostaglandins, is well established as a therapeutic option in urological diseases e.g erectile dysfunction. In female urology, the use of intravesical instillation of prostaglandins to promote bladder emptying and treat neurogenic bladder dysfunction has been investigated in clinical trials in the past with some success⁶⁻⁸.

Research into the effect of PUFAs and their metabolites is promising in urological cancer, particularly in prostate and bladder cancer. In vitro studies showed inhibition of prostate cancer cell lines with ω -3 PUFA and modulation of ω -3/ ω -6 PUFA ratios in animal diet altered tumour growth and PSA levels. Currently, several institutions are investigating the effect of low fat diet and altered fatty acids ratios in prostate cancer progression as well as the role of intravesical instillation of PUFA in bladder cancer. In conclusion, PUFAs may become a therapeutic option in the management of various urological diseases in the near future.

My laboratory work formed the basis of my thesis, for which the University of Aberdeen awarded me the higher degree of Doctor of Medicine in December 2000.

Competing interests

YZA is or has been a consultant, lecturer, investigator and/or the recipient of educational grants from organisations and companies marketing products for the treatment of prostate disease, overactive bladder and urinary incontinence.

Consultant/Advisor

NICE (UK National Institute for Clinical Excellence), COB Foundation, Astellas Pharma, Allergan Pharma.

Lecturer

COB Foundation, Astellas, Pfizer, Q med, Genesis

Research

Astellas, Allergan, Avera

Educational support

Astellas, Pfizer, Synofi, Q med, Astra Zeneca