

1506

**INTRAVESICAL LIPOSOMAL (LP08) INSTILLATION PROTECTS BLADDER UROTHELIUM FROM CHEMICAL IRRITATION**

*Jonathan Kaufman\**, Pittsburgh, PA; *Pradeep Tyagi*, *Michael B Chancellor*, Royal Oak, MI

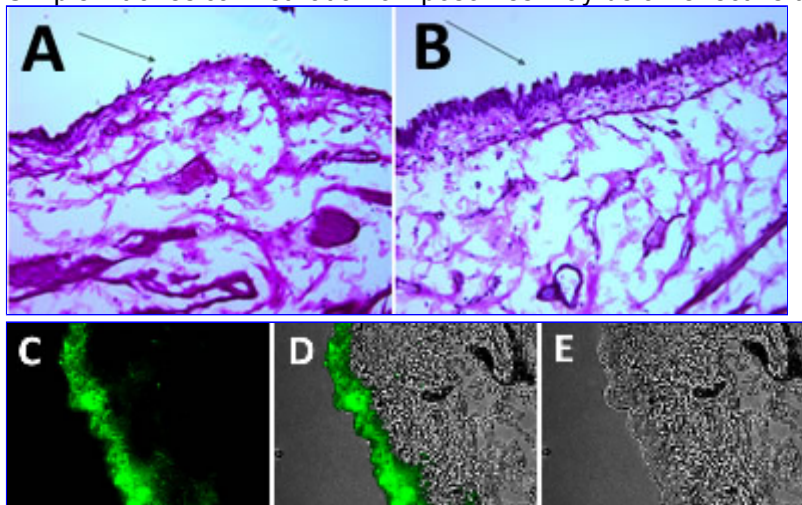
**INTRODUCTION AND OBJECTIVE:** Previous studies on intravesical liposomes (LP08) have demonstrated therapeutic effects in protamine sulfate (PS) induced hyperactive bladder. Presently, we studied the hypothesis that LP08 acts as a protective urothelial coating to reduce PS induced injury.

**METHODS:** Adult female Sprague dawley rats (225-250g) were anaesthetized with isoflurane and then first instilled with 0.5ml PS 30mg/ml into the bladder for 30 min followed by either 0.5ml saline or fluorescently labeled LP-08 for 30 min. After recovery from anesthesia instilled rats were housed in metabolic cages for 8h prior to bladder harvest. Bladder sections were analyzed by fluorescence and light microscopy.

**RESULTS:** Representative bladder sections taken by light microscopy demonstrated protective effects of LP-08 on PS induced bladder injury. Rats treated with saline (**A**) after PS had damaged bladder linings; rats treated with LP08 (**B**) had relatively intact bladder linings.

Fluorescent microscopy demonstrated bladder surface localization of LP08. Combining the fluorescent image (**C**) with light microscopy of the same section (**E**) yields the combination image (**D**). The combination image indicates that LP08 coated the urothelial surface without significant tissue penetration.

**CONCLUSIONS:** This histological study indicates intravesical liposomes can act as a protective, urothelial coating. Simple intravesical instillation of liposomes may be an effective therapy for lower urinary tract symptoms.



**J. Kaufman**, Lipella B; **P. Tyagi**, Lipella C; **M.B. Chancellor**, Allergan C, I, M, S; Lipella B, C; Cook Medical C, I, S; Astellas Pharma US, Inc. C, M; Pfizer Inc C, I, M, S; Xention C; Bayer-Schering C; Novartis Pharmaceuticals Corp. C, M, S; Sumitomo C.