Background: MicroRNAs have potential as urinary biomarkers for the non-invasive identification of new and recurrent bladder cancer. Unprocessed RNA rapidly degrades and the standard procedure for stabilising RNA cannot be performed in outpatient clinics. We compared a novel method of urinary sediment filtration and RNA stabilisation to the gold standard.

Method: Pooled normal urine samples were divided into 30 ml aliquots and either immediately filtered and stored in lysis buffer at 20C, or stored at 20C and either filtered or centrifuged prior to disrupting the cells in lysis buffer. Samples were between baseline and 48 hrs or 7 days then transferred to -80C. RNA was extracted and reverse transcribed. MicroRNA and mRNA transcripts were quantified by real-time PCR.

Results: MicroRNA copies decreased by >50% within 48hr in filtered and centrifuged samples stored at 20C. Filtration was superior to centrifugation and RNA copy was maintained in the stabilising buffer for 48hr at 20C. Time course experiments extended to 7d this showed no significant alteration in copies for microRNA or mRNA.

Conclusion: The urine filter method is superior to centrifugation and can incorporate a lysis and stabilisation step as a simple, reproducible approach to obtaining RNA in an outpatient clinic.

Discussion: Vulpectomy is largely abandoned due to severe psychosexual sequel. The current standard practice is WLE. Laser ablation is more cosmetically acceptable and should be considered on younger women. Imiquimod and PDT are effective in short-term, but further prospective studies needed to establish long-term efficacy.

Conclusion: There is no single best treatment. Specific treatments should be tailored to individual patients depending on nature of VIN, clinician’s experience and patients’ preference.

Background: MAMMOPLASTY SPECIMENS: 10-YEAR EXPERIENCE
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Background: The incidence of Vulval intraepithelial neoplasia (VIN) is rising in young patients. The management of VIN is not well established. Objective: To compare the efficacy of radical vulvectomy, wide local excision (WLE), CO2 laser ablation and various medical therapies in treatment of VIN.

Methods: All the literature in Pubmed and Medline were examined. 3075 patients from retrospective and prospective trials from 1968 to March 2009 were analysed. Recurrence rates, disease free intervals, advantages and disadvantages of each treatment were examined.

Results: Radial vulvectomy was best in reducing VIN recurrences (mean rate 17.6%). The combined technique (WLE+laser ablation) was next best (mean recurrence 25%), followed by WLE (26%) and laser ablation (30%). The most effective medical therapy was imiquimod (short-term mean recurrence 29.5%), followed by photodynamic therapy, PDT (43.8%).