Letters to the Editor

Dear Sir,

The paper by Dr Sofjan Lamid, Long-term Follow-up of Spinal Cord Injury Patients with Vesicoureteral Reflux, was of considerable interest to me. The author did not state the total number of patients admitted to his spinal cord injury service during the 2 years surveyed, so I could not directly compare the incidence of VU reflux with what we see in our patients here. We see this complication rather rarely, and only in patients who are non-compliant with our recommendations for bladder care. The fact that his patients got worse when he inserted Foleys leads me to the conclusion that he did not recommend the use of any antispasmodic medication? We feel that this is essential to abolish the hyperactivity of the detrusor and high intravesical pressures which are the basic causes of VU reflux. The insertion of a Foley catheter understandably leads to an increase in both these factors acting, as it does, as a foreign body with the balloon continuously stimulating the sensitive trigonal area. A breakdown of the incidence of infections in the cases with reflux would also be of interest. I feel that if his patients were to use antispasmodics (we use oxybutynin chloride, 5 mg po q6h on an empty stomach) together with good aseptic catheter care and a low-dose antibacterial medication, such as nitrofurantoin 50 mg po q12h, his incidence of reflux would be much lower.

Rosemary Lindan, MD
Assistant Director SCI Center
Cleveland, Ohio
USA

Reply from Dr Sofjan Lamid

The incidence of vesicoureteral (VU) reflux in our spinal cord injury (SCI) patients was 3.6%.

I agree with Dr Rosemary Lindan that a permanent indwelling Foley catheter may increase detrusor activity. Since high bladder pressure is one of the factors for VU reflux formation in SCI patients, probably by treating these patients with an anticholinergic agent together with antibiotic prophylaxis we should be able to prevent further deterioration of the affecting kidneys.

Dr Sofjan Lamid, MD
New Orleans, Louisiana,
USA

Dear Sir,

Concerning the paper by Noll *et al.*, Intermittent catheterisation versus per-

cutaneous suprapubic cystostomy in the early management of traumatic spinal cord lesions, *Paraplegia* 1988 26:4-9.

During recent years many papers have been published with an attempt to answer the question: How to drain the bladder in the acute SCI patient?

Some authors reported that fine bore suprapubic catheter drainage (SPC) gave promising results. (Grundy *et al.*, 1983; Peatfield *et al.*, 1983; Wyndaele *et al.*, 1985). Noll and his co-authors proclaim SPC to be superior to intermittent catheterisation (IUC). In 1986 Lloyd *et al.* published a comparison between 5 different ways of bladder drainage and concluded that it did not make any difference which method was used, and whether it was done in a general hospital or in an SC Injury ward.

In my opinion one should be very careful to draw conclusions regarding this too quickly. Each method has its advantages and disadvantages. The indwelling Foley catheter usually has several complications inherent to the continuous presence of a draining tube both in the bladder and in the urethra.

The undisputable merit of the work of Guttman and Frankel has been to clearly demonstrate that it is possible for patients to get through the acute stage of SCI without too many urological complications. Their statement (Guttman and Frankel, 1966) was based on the use of non-touch intermittent catheterisation. Good results can also be obtained with SPC, and if much care is given to Foley catheter drainage, even with this technique the results are not too bad, although more complications will be seen than with IUC or SPC (Wyndaele *et al.*, 1982). The correct application of the techniques and careful daily nursing will mainly determine success. With poor care, results will always be bad whichever technique is used. That the first infecting organism with SPC is more likely to be a Gram-positive one from the skin has been described before (Namiki *et al.*, 1978). It is not generally agreed that Gram-positive bacteria are not to be considered problem bacteria.

It is questionable if the actual technique of bladder drainage alone may significantly influence the bacteriological resistance in a ward. Usually many factors play a role: changes in nursing care, in antibiotic treatment, in infection prevention techniques etc. I expect that these factors have also influenced the results in the authors' ward.

It would have been interesting to know if infections could be treated successfully while the SPC was still in place, as the presence of this catheter might prevent cure and might be a cause of increasing bacterial resistance.

The authors are to be congratulated for their search for the continuous improvement of primary urological care. They might agree that application and daily care are at least as important as the method chosen, with the exception of long-term Foley catheter drainage, which is usually dangerous.

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Reply from Dr Friedhelm Noll

The majority of spinal cord injured patients need initial treatment in an intensive care unit, requiring continuous fluid balancing, frequently done with indwelling Foley catheters. Here the SPC is of definite advantage, combining continuous drainage, simplicity of care and low infection rate with the absence of all disadvantages of Foley drainage.

Our study showed that the probability of entering the next ISC or CIC phase with sterile urine is higher with SPC than with intermittent catheterisation. First infection is usually dependent on sterility performed during insertion of SPC, which is done, in our setting, by the physicians of the SCI unit, giving us control over initial sterility.

Early clean or sterile intermittent catheterisation is more favorable than any kind of continuous drainage. SPC should be left in place only during the acute phase of spinal cord injury. Then patients should be changed progressively to CIC or ISC. In this regard, our study does not intend to replace intermittent catheterisation, but introduces another safe method for early bladder management.

Certainly the work of Guttman and Frankel demonstrated, that intermittent catheterisation is a reliable tool, to decrease urological problems during the first stage of medical rehabilitation after SCI. Indeed, we believe, that intermittent catheterisation is one of the best bladder managements, when it is combined with low pressure bladder function.

The technique of bladder drainage alone does not change bacteriological resistances in a ward; this is dependent on multiple factors, one of those is certainly nursing care. SPC drainage in the acute phase avoids problems secondary to inappropriate intermittent catheterisation or Foley catheter drainage, during a phase, when patients are particularly vulnerable.

If infection occurred, it could be cured without major difficulty, even with SPC in place, assuming, that SPC drainage is done less than 2 weeks and first infection is meant. In prolonged SPC drainage or multiple reinfections, antibiotic treatment faces the same problems as known from indwelling catheters, still avoiding urethral problems.

In short: SPC is a safe management during the initial phase of SCI. It is superior to Foley drainage, considering side effects and long term results, and is easy to use. The probability of infection is reduced and almost independent of