

URETERIC INJURIES IN GYNAECOLOGY

It behoves all surgeons, throughout their careers, repeatedly to examine, re-assess and re-appraise their methods of investigation and treatment in the light of continued surgical advance. All too often outmoded procedures and forms of therapy are perpetuated long after the foundations for their continued use have been shown to be faulty, insecure, and unstable—to the detriment of the patient. The surgery of the injured ureter is a case in point. In the past diagnosis was often incomplete, delayed, or completely missed. As a result treatment was delayed with increased morbidity and often gross destruction of kidney tissue. The more modern approach stresses the avoidance of injury, outlines means of early and complete diagnosis and methods of direct surgical attack.

Perhaps the most important single factor responsible for the changed surgical approach has been the increased use of intravenous pyelography, both pre- and post-operatively, as a diagnostic aid. Very few people are too ill, even 36-48 hours after operation, for intravenous pyelography, which is a procedure of minimal danger causing only slight inconvenience, at worst. It is a procedure requested all too infrequently by gynaecologists.

It has become patently obvious, using this method of investigation, that the ureter, in its course through the female pelvis, is injured surgically far more often than we have been led to believe in the past. Abundant articles in the literature confirm this. It is further an accepted fact that a large proportion of these injuries are first discovered, either in the postmortem room or in the urological department, at some later date, when they present as gross hydronephroses or non-functioning kidneys. The symptoms of ureteric injury are notoriously silent in as high as fifty per cent of cases, even after complete ureteric ligation. The occasional backache in the post-operative period is too often accepted as of little import.

It is thus timely that Mr. I. Jacobson, in his article in the present issue of the *Journal*, should shed a little more light on the incidence of this much-neglected injury and its management; all the more important because of the particular attention paid in this article to controversial methods of management. It is also interesting to note that Mr. A. Dickson Wright, of London, during his recent visit to this country, chose, as the subject of his Margaret Orford Memorial Fund Lecture 1960: 'Urinary complications of gynaecological surgery'. The fact that both these authors, independently of one another, draw attention to this problem at this stage, is a significant reflection of the mood of present trends in this connection.

A full appreciation of the incidence, sites of particular danger, methods of avoidance of injury, and early recognition both at operation and immediately after operation, in addition to the ability to deal with such injuries on the spot, should all be part of the working knowledge of the well-trained gynaecologist. Where he feels unable to handle the complication, early recognition of the condition will mean earlier definitive urological surgery.

Ligation of the cut ureter is still carried out today far more frequently than is necessary—almost certainly because of a lack of full appreciation of alternative methods of management. Bland-Sutton condemned this

treatment at the turn of the century as the poor surgery of a destitute surgeon. That condemnation is as true today as it ever was, nor lightened in any way by the possible (but, usually, unproved) presence of a normal kidney on the contralateral side. The ureteric injury, unavoidable as it sometimes may be, appears to be sufficient additional burden for the patient without the all-too-hasty, immediate, enforced loss of half her renal tissue. Though at times the kidney may have to be sacrificed, that should remain the last, and not the first, line of treatment.

The most satisfactory treatment for postoperative bilateral ureteric obstruction after pelvic surgery is also somewhat contentious. The old method of treatment consisting of bilateral nephrostomies with plastic procedures to the lower ureters to follow, entails at least three operations as a rule, with a delay of up to 6-18 months between the last two. The more modern conception of immediate deligation of both ureters, performed extraperitoneally, as quoted in Jacobson's article, gives immediate restoration of function as soon as possible—in one procedure. The patients do not seem to be too ill for this procedure at any time in the immediate postoperative period, until uraemia supervenes. This approach has recently been advocated on both sides of the Atlantic and, according to the results of Reisman *et al.*¹ appears to be well worthy of extended trial by urologists.

Without doubt the most unpleasant complication from the patient's point of view is a ureterovaginal fistula. It has long been the teaching that fifty per cent of these cases (Hinman²) heal without surgical interference. As a result gynaecologists will usually adopt an attitude of 'wait and see' for as long as the patient and her relatives will let him—preferably for up to six months. If the fistula should heal during this time, it is almost certainly as a direct result of complete loss of renal function on the affected side and therefore no valid reason for self-congratulation on the part of the surgeon. If healing does not take place, recurrent attacks of pyelonephritis continue to sap renal reserve with increasing destruction of renal tissue, making eventual nephrectomy a far too common sequel after months of extreme discomfort and misery for the patient.

Mr. Jacobson, in his article, makes a plea in these cases, where the diagnosis is patently obvious as a rule, for immediate urological investigation. The surgical management of this complication is essentially within the compass of the modern urologist who is quite prepared to re-implant the affected ureter into the bladder as soon as possible after diagnosis has been confirmed radiologically. The results of these re-implantations, judging by the cases reported in Jacobson's article, appear to be uniformly satisfactory. The patient is rapidly relieved of the condition which makes her, temporarily at least, a social outcast and, even more important than this consideration, renal functioning tissue is conserved and preserved. Only by treatment along these lines can the tragedies of the injured pelvic ureter be averted.

1. Reisman, D. D., Kambolz, J. H. and Kantor, H. I. (1957): *J. Urol.* (Baltimore), **78**, 363.
2. Hinman, F. (1940): *West. J. Surg.*, **48**, 486.

PRIMÈRE PIGMENTASIE

Primêre of direkte pigmentasie moet onderskei word van sonbrand-pigmentasie wat gewoonlik enkele dae na sonblootstelling plaasvind en wat gewoonlik volg op 'n sonbrand-eriteem. In die geval van primêre pigmentasie vind die verdonkering reeds tydens die bestraling plaas. Dit is gewoonlik binne tien minute na blootstelling aan direkte sonlig baie duidelik waarneembaar veral by die gekleurde rasse. Die verskynsel is die eerste keer in 1938 deur Hauser¹ en, onafhanklik van hom, in 1938 deur Henschke en Schulze² waargeneem by bestraling met ultraviolet ligbronne.

Aanvanklik is primêre pigmentasie beskou as 'n taamlik ongewone reaksie wat net by sommige mense voorkom. Kooij en Scott³ kon egter aantoon dat dit 'n algemene verskynsel is by gekleurde rasse en dat dit selfs by Blankes maklik op te wek is indien daar reeds pigment aanwesig is. In hierdie uitgawe van die *Tydskrif* word 'n oorsig van werk wat reeds op hierdie gebied gedoen is, gegee en verdere eksperimente word gerapporteer.

Dit is verbasend dat in die verlede so weinig aandag aan hierdie verskynsel, wat so maklik by gekleurde rasse op te wek is, gegee is. In hulle eerste publikasie oor hierdie onderwerp het Kooij en Scott³ met die hulp van filters die aktiewe spektrum vir hierdie verskynsel op ongeveer 300-460 m μ vasgestel. Dit verskil dus van die kortgolwige ultraviolet-spektrum van die son wat tussen 290-320 m μ lê en wat vir die sonbrand-pigmentasie verantwoordelik is.

In die artikel waarna ons verwys word verder gerapporteer oor die invloed van verskillende stowwe op hierdie verskynsel. Geeneen van die veertien stowwe het by plaaslike aanwending enige invloed op die verskynsel gehad nie. Een stof egter, nl. metoksalen, 'n furokumarien, het

'n duidelike invloed op die sonbrand-reaksie vertoon. Met die hulp van verskillende filters kon aangetoon word dat hierdie stof verantwoordelik is vir verskuiwing van die sonbrand-verwekkende strale na 'n langer golflengte. Hierdie bevinding, naamlik die veranderde gevoeligheid vir sonstrale, mag nuwe lig werp op die uiters belangrike vraagstuk van siektes wat ontstaan op die basis van oorgevoeligheid vir sonstrale — 'n groep aandoeninge wat 'n belangrike rol by die huidpatologie van ons sonryke land speel. Die skrywers spekuleer oor die moontlikheid van abnormale stowwe (metaboliete) wat onder die invloed van sonlig ontstaan en verantwoordelik is vir die abnormale reaksie.

Met hierdie werk wat in Suid-Afrika gedoen word, word 'n verdere bydrae gelewer tot die ingewikkelde meganisme van pigmentvorming. Of ons hier net met 'n eenvoudige pigmentasie van 'n ligtere na 'n donkere soort melanien te doen het, kan alleen deur verdere eksperimente aan die lig gebring word. Ook die verband met die alreeds lankbekende postmortale verdonkering ('pigment darkening') moet nog aangetoon word. In 'n volgende artikel word hierdie verskynsel behandel en word daar oor eksperimente met uitgesnyde stukkieë huid gerapporteer.

Suid-Afrika met sy oorvloed van sonlig en uitstekende materiaal bied 'n gulde geleentheid vir studies op hierdie gebied. Die Fotobiologiese Navorsingsgroep van die W.N.N.R., onder wie se beskerming hierdie navorsing plaasvind, behoort 'n belangrike bydrae tot die huidpatologie in ons land te lewer.

1. Hauser, I. (1938): *Strahlentherapie*, **62**, 315.

2. Henschke, U. en Schulze, R. (1938): *Ibid.*, **64**, 14.

3. Kooij, R. en Scott, F. P. (1954): *S. Afr. T. Geneesk.*, **28**, 433.