South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

EDITORIAL

SURGICAL FATALITIES

The rate of mortality in patients undergoing certain operations in teaching hospitals in the UK has recently been compared with another group of patients undergoing similar operations in non-teaching hospitals.[1] The operations considered were appendicitis with peritonitis, perforated peptic ulcer, and hyperplasia of the prostate. All 3 groups show that in a large series of figures and taken over some time, the mortality among the cases in the non-teaching hospitals was substantially greater than in the teaching hospitals. In the group of appendicitis with peritonitis 3·4% died in the teaching as opposed to 6·8% in the non-teaching hospitals. In the group of perforated peptic ulcer the relative figures were 7·6% and 10·6%, and in cases of operation for hyperplasia of the prostate the mortality was 7·1% in the teaching as compared with 10·8% in the non-teaching hospitals.

These statistics are revealing; their publication will stimulate many opinions on the reason for the disparity and doubtless many suggestions will be made how the standard of surgery in the non-teaching hospitals can be brought closer to that obtaining in the teaching hospitals. It seems from the figures that the patient who dislikes going into a teaching hospital and who persistently refuses to be examined by students is displaying not only foolishness but sheer foolhardiness.

Surgery is now a mature science, although informed opinion will not conclude that we have reached the limits of surgical progress. The maturity of a medical discipline is measured not by the high percentage of its successes, but by the fewness of its failures. As in modern air travel, no matter how vast the number of successful flights an air line has to its credit, the report of a few crashes is most damaging to its reputation. That the safety of surgery has reached a stage where it can be compared with that of modern air travel should be a matter for general satisfaction. Where one surgeon, for example, reports with pride a recovery rate of 97%, another one with a recovery rate of 98% may well point out that his mortality figures are less by 50% than those of his colleague, although the difference between 97 and 98% does not look very great; it is on this fatality rate that the danger of operations must be assessed and judged. It is no longer a surgical miracle that a patient survives; on the contrary it is a matter for record when a

VAN DIE REDAKSIE

CHIRURGIESE STERFTES

Die sterftesyfer onder pasiënte wat sekere operasies in opleidingshospitale in die Verenigde Koninkryk ondergaan het, is onlangs vergelyk met dié van 'n ander groep wat soortgelyke operasies in gewone hospitale ondergaan het.[1] Die operasies wat in aanmerking geneem was, was vir blindedermontsteking met buikvliesontsteking, deurborende maagseer, en hiperplasie van die voorstanderklier. In 'n groot reeks gegewens wat oor 'n aansienlike tydperk aangeteken was, is bevind dat die sterftesyfer by al 3 groepe aansienlik groter was in die gewone hospitale as in die opleidingshospitale. In die groep blindedermontsteking met buikvliesontsteking het 3·4% pasiënte in die opleidingshospitale gesterf en 6·8% in die gewone hospitale. In die groep deurborende maagsere was die syfer 7·6% en 10·6% onderskeidelik, en by die gevalle van operasie vir hiperplasie van die voorstanderklier was die sterftesyfer 7·1% in die opleidingshospitale en 10·8% in die gewone hospitale.

Hierdie statistieke is veelbetekenend; hulle publikasie sal uiteenlopende menings oor die rede vir die verskil uitlok en daar sal ongetwyfeld baie voorstelle aan die hand gedoen word oor hoe die gehalte van die snykunde in die gewone hospitale verbeter kan word om gunstig te vergelyk met dié wat in die opleidingshospitale heers. Uit die gegewens blyk dit dat die pasiënt wat nie daarvan hou om in 'n opleidingshospitaal behandel te word nie en wat altyd weier om deur mediese studente ondersoek te word, hom nie alleen aan dwaasheid skuldig maak nie maar ook aan louter roekeloosheid.

Die snykunde is vandag 'n volwasse wetenskap, hoewel deskundiges nie sal beweer dat ons die perke van chirurgiese vooruitgang bereik het nie. Die volwassenheid van 'n mediese dissipline word gemeet aan die skaarsheid van sy mislukkings eerder as aan die hoë persentasie van sy suksesse. Net soos by die moderne lugvaart: 'n maatskappy se reputasie kan oneindig veel skade ly deur die verslag van 'n paar rampe, nieteenstaande die ontelbare suksesvolle vlugte waarop hy kan roem. Dit behoort rede vir algemene tevredenheid te wees dat die veiligheid van die snykunde vandag die stadium bereik het waar dit vergelyk kan word met moderne lugvaart. Waar 'n chirurg byvoorbeeld met trots kan spog met 'n herstelsyfer van 97%, kan 'n ander een met 'n herstelsyfer van 98% daarop aanspraak maak dat sy sterftesyfer 50% minder as dié van sy kollega s'n is, hoewel die verskil tussen 97% en 98% nie baie groot lyk nie; dit is dan ook volgens hierdie sterftesyfer wat die gevaar van operasie bereken en beoordeel moet word. Dit is vandag nie 'n chirurgiese wonderwerk as 'n pasiënt die operasie oorleef nie; dit is eerder iets om van te praat as hy sterf. Chirurge, algemene praktisyns en die publiek is daarop geregtig om te weet dat die uitdrukking ‚aan hulle goeie

fatality occurs. Surgeons, general practitioners and the general public are entitled to know that the expression 'By their good deeds shall ye know them' is no longer applicable to modern surgical figures; on the contrary, by their bad results shall ye know them.

In a country such as England where the general standard of medical competence has always been very high and where surgical ability parallels technical competence in other matters, it is surprising to find these relatively high mortality figures in the non-teaching hospital. There is no doubt that in a teaching hospital there is less room for the self-opinionated, conceited surgeon. More self-criticism and less pride help to keep the figures of mortality low, but the greater factor in reducing the death rate is effective pre- and post-operative treatment, and a healthy critical spirit in the wards, the theatre and the autopsy room. In modern surgery the actual operation itself is only a phase, and that not always the most important one, in what may be a long course of therapy. In spite of their better figures the operators in teaching hospitals are often only recently qualified junior men who are learning their trade; the very nature of learning implies that this must be so. In the non-teaching hospitals the non-supervised, often senior, but often also occasional operator may be held responsible for much of the unfavourable results, but other factors may play a great part. It is the painstaking pre-operative care and meticulous post-operative attention which brings success and makes the statistics we expect and hope to achieve.

Perhaps linked with this matter is another British report, made by the Select Committee on Estimates to the House of Commons on the Running Costs of Hospitals.[2] The average London teaching hospital has an in-patient cost of £27 per week as compared with £18 per week for the average acute 300-900 bed non-teaching hospital. The Committee recommends that until the standards of non-teaching hospitals reach a significantly higher level the allocation of development and improvement money to teaching hospitals should continue to be strictly limited. It thus appears that the first step in Great Britain is going to be a raising of the standards of the non-teaching hospitals before the teaching hospitals are to be allowed to spurt still further ahead.

Doubtless the matter received much thought before this important decision was reached. We are not in a position to offer advice or opinions on this subject to our colleagues in Great Britain. A country whose medical journals are prepared to publish these damaging figures is certainly capable of finding out the proper means of correcting the trouble.

For us in South Africa, the publication of the British statistics should lead to an early assessment of the state of affairs in our non-teaching hospitals. While we believe that our teaching hospitals can stand comparison with any in the world for the excellent pre- and post-operative treatment of their patients—various reports on long series of operations have tended to confirm this opinion—a survey of results in non-teaching hospitals should be undertaken in the near future to afford a reliable assessment of results and incidentally to prevent undue pessimism on the one hand and an undue state of satisfaction on the other.

1. Lee, J. A. H., Morrison, S. L. and Morris, J. N. (1957): Lancet, 2, 785.
2. Article (1957): *The Running Cost of Hospitals. Ibid.*, 2, 739.

dade sal julle hulle ken' nie meer van toepassing op chirurgiese statistieke is nie; inteendeel, aan hulle mislukkings sal julle hulle ken.

In 'n land soos Engeland waar die algemene standaard van geneeskunde nog altyd baie hoog was en waar snykundige bedrewenheid kers kan vashou by tegniese deskundigheid op ander gebiede, is dit verbasend dat sulke betreklik hoë sterftesyfers in die gewone hospitale aangetref word. Daar is seer sekerlik nie plek vir die eiewyse, verwaande chirurg in 'n opleidingshospitaal nie. Meer selfkritiek en minder hoogmoed help om die sterftesyfer laag te hou, maar die grootste faktor by die beperking van die sterftesyfer is doeltreffende voor- en naoperatiewe behandeling, en 'n gesonde kritiese gees in die saal, die teater en die lykskouingskamer. In die moderne snykunde is die operasie self slegs 'n deel van 'n moontlik baie lang behandelingskursus, en dan ook nie altyd dié belangrikste nie. Nieteenstaande hul gunstiger statistieke is die chirurge in opleidingshospitale dikwels jong mans wat so pas gekwalifiseer het en wat nog hulle vak leer; dit volg uit die aard van die opleiding. In die gewone hospitaal kan die chirurg wat sonder toesig werk, en wat dikwels 'n senior man is, maar dikwels ook een is wat nie so gereeld opereer nie, verantwoordelik gehou word vir baie van die ongunstige resultate, maar daar is ander faktore wat ook 'n belangrike rol speel. Dit is die noulettende voor-operatiewe sorg en sorgvuldige na-operatiewe toesig wat die operasie laat slaag en die statistieke wat ons verwag en hoop om te behaal, moontlik maak.

Moontlik staan 'n ander Britse verslag deur die *Select Committee on Estimates* aan die Britse Laerhuis insake die lopende uitgawes van hospitale[2] in verband hiermee. Die gemiddelde Londense opleidingshospitaal se uitgawe vir binne-pasiënte beloop £27 per week, teenoor £18 per week vir die gemiddelde gewone hospitaal vir akute gevalle met 300-900 beddens. Hierdie Komitee beveel aan dat tot tyd en wyl die standaard van gewone hospitale aansienlik verbeter, die toekenning aan opleidingshospitale van fondse vir ontwikkeling en verbeterings nog altyd streng beperk moet word. Dit blyk dus dat die owerhede in Groot-Brittanje hulle eerstens daarop gaan toelê om die gehalte van die gewone hospitale op hoogte te bring voordat die opleidingshospitale toegelaat gaan word om verder vooruit te skiet.

Die saak het ongetwyfeld baie aandag geniet voordat hierdie belangrike besluit geneem is. Dit betaam ons nie om oor hierdie onderwerp raad te gee of menings uit te spreek aan ons kollegas in Groot-Brittanje nie. Die land wie se mediese tydskrifte bereid is om sulke ongunstige gegewens te publiseer, is seer sekerlik in staat om self te besluit hoe die moeilikheid ten beste opgelos kan word.

Vir ons in Suid-Afrika behoort die publikasie van hierdie gegewens 'n aansporing te wees tot 'n eersdaagse oorsig van die heersende toestande in ons gewone hospitale. Ons is daarvan oortuig dat ons opleidingshospitale gunstig vergelyk kan word met enige ander in die wêreld wat voortreflike voor- en na-operatiewe behandeling van pasiënte betref—verskeie verslae van lang reekse operasies skraag hierdie mening—maar die resultate aan gewone hospitale kan gerus binnekort in oorsig geneem word om 'n betroubare berekening van resultate te verkry; dit sal terloops onnodige pessimisme aan die een kant en oorbodige tevredenheid aan die ander kant, voorkom.

1. Lee, J. A. H., Morrison, S. L. en Morris, J. N. (1957): Lancet, 2, 785.
2. Artikel (1957): *The Running Cost of Hospitals. Ibid.*, 2, 739.