

A REVIEW OF NINE YEARS' (1951-1959) SURGICAL EXPERIENCE WITH
CANCER OF THE CERVIX UTERI IN THE GROOTE SCHUUR HOSPITAL,
CAPE TOWN, SOUTH AFRICA

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He who undertakes a study of cancer has to be a stayer — yet he must have latent sprinting qualities. Should he be surgically inclined, the staying qualities must predominate. The long uphill road, with its many disappointments, looms continuously ahead. After a considerable amount of hard study and skilful training comes the first satisfying, but fleeting realization that the operative technique — an anatomical exercise — has been mastered. This satisfaction is evanescent since cancer cannot always be cured in the light of present-day knowledge. Not only is the road a

steep one, it is also bumpy and winding. Behind each corner many sidetracks are found. It is often impossible to know which is the true road to follow. Courage is required to be able to turn back once the worker finds himself on the wrong track.

Failures make deeper impressions than do successes. Patients suffering from recurrence of the disease visit the out-patient department at increasingly frequent intervals and are eventually admitted to hospital where they are seen daily, whereas most patients who are (as yet) classified as successes are expected to visit at intervals varying from 3-6 months or more, i.e. they are seen relatively infrequently. On any steep climb it is both necessary and refreshing to take a 'breather'. While doing this it is pleasant to survey or review the territory already covered. Care must be taken not to allow this 'breather' to become a long rest or to indulge too long in the survey.

REVIEW OF NINE YEARS' SURGERY

This paper reviews the work done in the surgical treatment of patients suffering from cancer of the uterine cervix between the years 1951 and 1959 inclusive.

Indications for Operation

Initially, the indications for operation were those put forward by Read,⁸ viz:

1. A recurrence of the disease following adequate radiotherapy.

TABLE I. CARCINOMA OF THE CERVIX, 1951 - 1954

Year	No. of cases	Glands		December 1959	
		Involved or not	No.	Condition	No.
1951	7	Involved	0	Alive	0
				Dead	0
		Not involved	7	Alive	4
				Dead	3
1952	8	Involved	5	Alive	0
				Dead	5
		Not involved	3	Alive	1
				Dead	2
1953	11	Involved	4	Alive	0
				Dead	4
		Not involved	7	Alive	5
				Dead	2
1954	17	Involved	7	Alive	2
				Dead	5
		Not involved	10	Alive	5
				Untraced	2
				Dead	3
Total	43	Involved	16	Alive	2
				Dead	14
		Not involved	27	Alive	15
				Untraced	2
				Dead	10

2. The existence of contra-indications to radiotherapy, e.g. coexisting pelvic inflammation, ovarian tumours, large fibroids, etc.

3. Refusal of radiotherapy by the patient.

Gradually the indications for operation increased until all patients with cervical carcinoma were offered surgery, either when radiotherapy is contra-indicated or when this treatment is completed, as suggested and done by Schlink.⁹ During the years 1951-1954 the type of operation performed was according to the technique of Bonney.² From 1955 onwards the attack on the lymphatics has been far more radical, i.e. as outlined by a few authors in Meigs¹⁰ excellent book. In a few years' time, therefore, it will be of interest to review all these figures.

Results for 1951 - 1954

Table 1 shows that 43 patients suffering from cervical cancer underwent the Wertheim operation during this

TABLE II. CARCINOMA OF THE CERVIX, 1955 - 1959

Year	No. of cases	Glands		December 1959	
		Involved or not	No.	Condition	No.
1955	27	Involved	11	Alive	0
				Untraced	1
				Dead	10
		Not involved	16	Alive	11
				Untraced	2
				Dead	3
1956	34	Involved	12	Alive	6
				Untraced	1
				Dead	5
		Not involved	22	Alive	12
				Dead	10
1957	33	Involved	9	Alive	4
				Dead	5
		Not involved	24	Alive	21
				Dead	3
1958	41	Involved	11	Alive	7
				Dead	4
		Not involved	30	Alive	27
				Dead	3
1959	21	Involved	5	Alive	4
				Dead	1
		Not involved	16	Alive	15
				Dead	1
Total	156	Involved	48	Alive	21
				Untraced	2
				Dead	25
		Not involved	108	Alive	86
				Untraced	2
				Dead	20

4-year period. Of these 43 patients, 16 had cancerous involvement of the glands. Two of these 16 patients are alive. In 27 patients, where no metastases in the glands

were found, 15 were alive and well in 1959. Ten are dead and 2 cannot be traced.

Glandular involvement is no criterion of the duration or even of the stage of the disease. It is possible that there are at least 2 types of cervical cancer, viz. one spreading rapidly and killing surely, and the other more readily cured because of slow spread by continuity and contiguity. This is comparable to the modes of inflammatory spread so aptly described by Fry,⁴ i.e. the readily diffusing type of spread found with the streptococcal infections and the more halting and localizing variety encountered when staphylococci are the aetiological agents.

Results for 1955 - 1959

Table II demonstrates that it does not take 5 years for the more readily spreading cancer to kill, i.e. when glands are involved (no matter if only 1 isolated metastasis is found) the prognosis tends to be uniformly poor; in most other series, e.g. those of Schlink⁹ and Antoine,¹ it is more favourable.

The patients operated upon in 1955 certainly seem to have followed their forerunners with a monotonous and tragic regularity. Obviously, no conclusions may be drawn

from the study of Table II. The comparison, however, between those alive and dead, when glands are involved is, to say the least, most discouraging.

Exenterations

While considering these depressing results, let me fill in the unhappy picture and study the results of cervical cancer sufferers who have had exenterations in an attempt to eradicate a widely-spread disease.

The toll taken by the disease despite the most major surgery is still very high. Out of a total of 29 exenterations (Table III) for cervical cancer, 4 patients are known to be alive. These depressing results cannot be made more palatable by stating that 2 patients operated upon in 1954 were alive and well (and free of cancer) in December 1959 or that a number lived for 2 or more years. It is obvious that these results are not significant. What is more, many of the patients who survive exist in discomfort following the operation — although, in all probability, they would have died earlier and have had more discomfort had the operation not been performed. When confronted with a patient who has a cervical carcinoma infiltrating both bladder and vagina, causing a evil-smelling, cancerous vesicovaginal fistula, we must offer her some help. An exenteration in such a case is palliative and possibly curative.

It must be emphasized that practically every woman in this series who died, died of cancer or because of it. Only 2 patients died within hours of the operation. The first had an exenteration in 1951. She was extremely badly chosen and should never have been submitted to the operation, since her electrolyte balance was grossly abnormal. She harboured a stage 3-4 cervical cancer and became anuric immediately after the application of radium. The operation was unwisely done at this stage. The other patient was lost because a rapid, uncontrollable pulmonary oedema developed during the first night following the exenteration. The reasons for the good immediate post-operative results usually obtained are that extensive electrolyte studies are done. Corrective procedures are instituted as soon as the slightest abnormality presents itself. Unfortunately, our patients sometimes come from distant areas, so follow-up studies are difficult. There have been quite a number of late postoperative complications, and it has been impossible to get a clear picture of them.

It is only too obvious that the commonest complication concerns the urinary tract. As far as is known, only 1 of the Wertheim group has developed a ureterovaginal fistula and 4 have developed vesicovaginal fistulae.

When it comes to exenterations, especially the posterior variety, the urinary complications are legion. It can readily be understood that when the sacrum is left bare, with nothing between it and the bladder, this organ inevitably becomes adherent to the sacrum. Interference with innervation and blood supply usually gives rise to difficulties in micturition. This in turn may lead to urinary stasis, which is invariably followed by infection. Further demands are thus made on an already impaired blood supply. This commonly results in fistulae, whether the exenteration is done for cervical or other pathology.

Preventive Measures

However, it is well known that neither surgery nor radiotherapy nor even a combination of these methods of

TABLE III. EXENTERATIONS, 1951 - 1959

Year	No. of cases	Glands		December 1959	
		Involved or not	No.	Condition	No.
1951	1	Involved	1	Dead	1
1952	—	—	—	—	—
1953	1	Not involved	1	Dead	1
1954	8	Involved	4	{ Alive	1
				{ Dead	3
		Not involved	4	{ Alive	1
				{ Dead	3
1955	3	Involved	2	{ Alive	1
				{ Dead	1
1956	5	Not involved	1	Dead	1
		Involved	4	Dead	4
1957	6	Involved	5	{ Alive	1
				{ Untraced	1
				{ Dead	3
		Not involved	1	Dead	1
1958	2	Involved	1	Dead	1
		Not involved	1	Dead	1
1959	3	Not involved	3	Dead	3
Total	29	Involved	14	{ Alive	3
				{ Untraced	1
		{ Dead	10		
		Not involved	15	{ Alive	1
				{ Dead	14

treatment is satisfactory. The cure for cancer is still well beyond our grasp, and an all-out search for its cause and cure is a world-wide undertaking. In an attempt to prevent this disease, we are in duty bound to use whatever measures we can. In a previous article I stated that cervical erosion and vaginal discharge clinics were instituted in the Groote Schuur Hospital in 1954.⁵ Papanicolaou⁷ smears have been taken from patients at

TABLE IV. PAPANICOLAOU SMEARS PERFORMED, 1955 - 1959*

Year	Patients	Smears	Positive
1955 (from 4 February)	593	1,186	19
1956	692	1,384	33
1957	822	1,644	18
1958	1,050	2,100	32†
1959	3,280	6,560	106
Total	6,437	12,874	208

* These figures were kindly supplied by Mr. N. Constantine, F.R.M.S., of the Department of Obstetrics and Gynaecology, University of Cape Town and Cape Provincial Administration.

† One of these was positive for a tubal carcinoma.

these clinics since 1955⁵ and from all new patients at the gynaecological out-patient department since February 1959. Table IV and Fig. 1 demonstrate the gradual beginnings in this department followed by wider coverage in the field of cytology.

That cancer is possibly preventable may be demonstrated by the following cases:

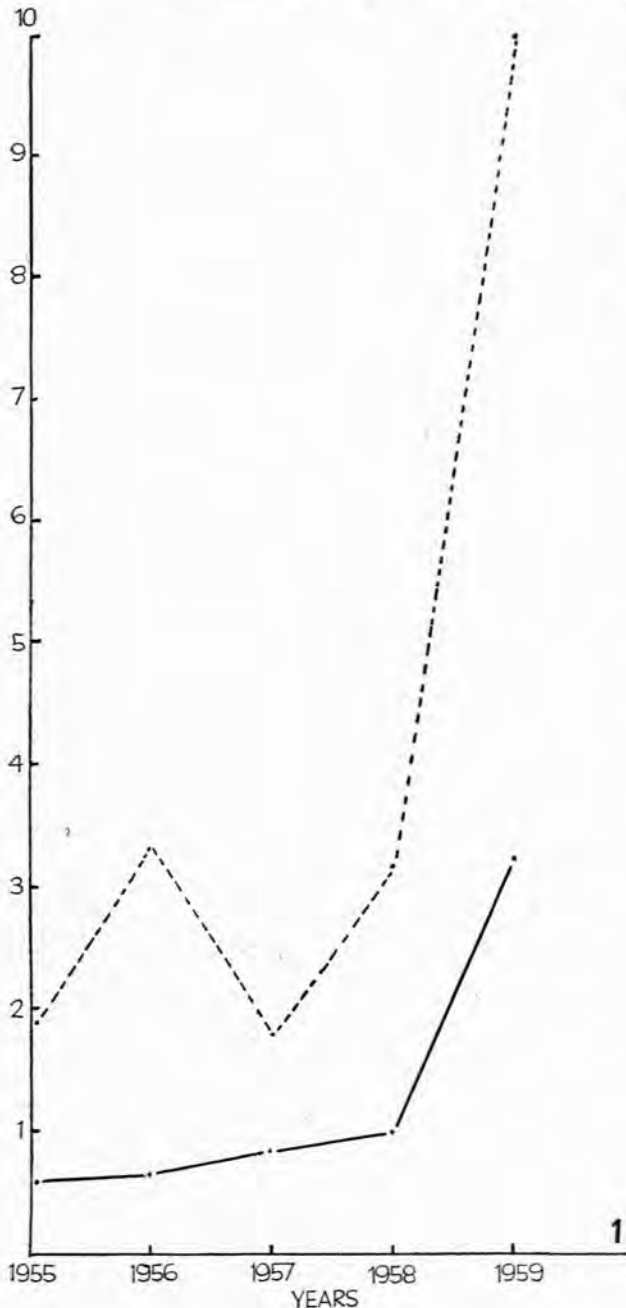


Fig. 1. Graph showing relationship between number of patients on whom cytological examinations (Papanicolaou smears) were performed and positive results. (Unbroken line indicates no. of patients examined in 1000s; broken line indicates no. of positives in 10s.)

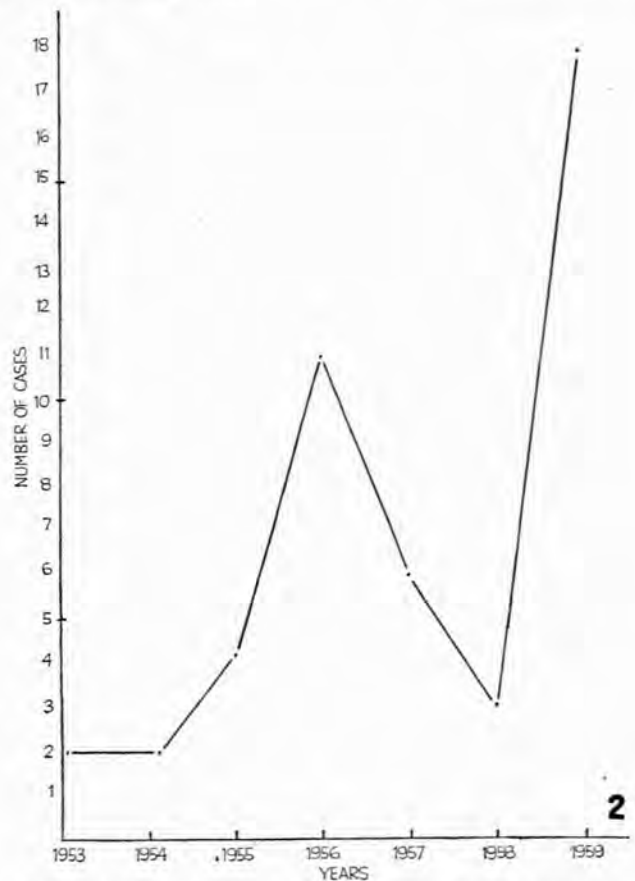


Fig. 2. Graph showing number of cases of carcinoma-in-situ seen at Groote Schuur Hospital between 1953 and 1959.

1. E.N. had smears taken in the 'erosion' clinic on 25 February 1955 (P.31). A diagnostic snip from the cervix was considered imperative. However, she defaulted and this was not done. On 24 February 1959 she reported to the 'vaginal discharges' clinic when the smears revealed

frank cancer cells. Biopsy confirmed the presence of cancer.

2. P.Z.'s smear (P.1213) revealed atypical cells on 29 November 1956. She did not reappear until 9 February 1959 when abnormal cells were revealed once more. The report on her biopsy (1700/59) read: 'Epidermization of cervical glands. Some atypicality, not to the same extent as seen in carcinoma-in-situ'.

Cone biopsies are taken in all cases with positive or doubtful smears and numbers of sections are studied. I must emphasize that smears are not taken from obvious cases of cervical cancer; histological sections are done as a matter of routine. Carcinoma-in-situ has been diagnosed more frequently since the advent of exfoliative cytology. Table IV is interesting since it shows a major increase in positive smears in 1956. We thought that a further increase in positive smears in carcinoma-in-situ would be found when a social worker was employed, and this proved to be so. In 1959, 18 cases were found, as shown in Fig. 2—a graph of the number of patients harbouring a carcinoma-in-situ diagnosed annually since 1953.

Possibly, by 'diagnosing the cancer before it has occurred', it may be prevented. Gradually work will be

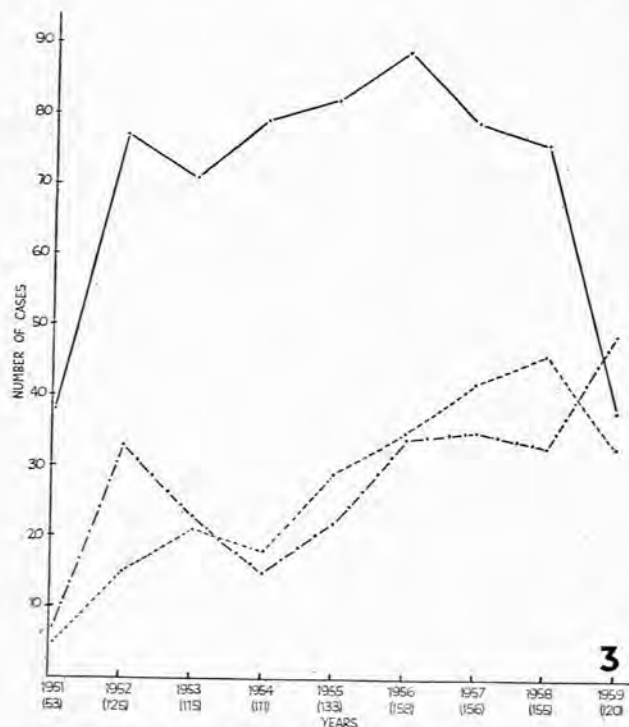


Fig. 3. Graph showing number of cases of carcinoma of the cervix admitted annually to Groote Schuur Hospital between 1951 and 1959, divided into 3 groups depending on the distance of the patients' homes from the hospital. Figures in brackets under the years show the total number for each year. (— = patients from city + radius of 10 miles (A), - - - = patients from radius between 10 and 100 miles, = patients from further than 100 miles.)

done to prevent it from even showing a likelihood of occurring. It is imperative to have a social worker who is both interested in this type of work and on the alert in order to sort out all reports and to arrange hospital admission of patients, with positive or doubtful smears, for thorough investigation. Defaulters cannot be afforded, since it is much less expensive to prevent cancer than to treat it. It is our endeavour to constantly lower the number of cervical cancer sufferers admitted to the Groote Schuur Hospital by doing our utmost to prevent the disease. We hope to do so by good postnatal care, by the adequate treatment of erosions and discharges, by the detection of cases by the smear technique and colposcopy, and by the preaching of cleanliness in both males and females.

Fig. 3 depicts the number of patients with cervical cancer admitted annually. We fervently hope that graph (A) reached its zenith in 1956 and that the decline will now be steady and progressive. Once this is established it might be argued that a grip on the situation has been attained and that attention must be focused further afield. Obviously, no conclusions can be reached from the study of this graph. Adequate plotting against population figures, etc. is essential.

CONCLUSIONS

It is immediately evident that no attempt was made at 'staging' the disease since this is deemed unnecessary.⁵ It is essential to deal with this vast problem by the establishment of an active team consisting of an early diagnostic and, possibly, a preventive service, and also of social workers. It is thought that, if more emphasis is placed upon these aspects, there might yet be less use made of radiotherapy and surgery. In prevention lies one ray of hope for the future.

With present-day knowledge, once the disease has taken root, it seems that Read's postulates⁸ are still the soundest principles to follow. Radiotherapy is the spearhead in the attack, and surgical treatment is dependent upon the reaction of the cancer to radiotherapy, or upon associated pathology ruling out the use of this approach either physically or mentally.

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