

U.K. Author.



NEWSLETTER

10TH ANNIVERSARY ISSUE

VOL V No. I.

JAN/JUNE 1980

MESSAGE FROM THE PRESIDENT

I feel deeply honoured for having been elected President of our Academy for the year 1980 and particularly privileged because I am neither a Pathologist nor a Gynaecologist. Perhaps the only claim I may have, lies in the fact that I did establish the first Cytology Laboratory in the country in the early 50s, against the personal advice of some of our senior Pathologists at the time.

In our country, Cancer of the Uterine cervix is the most common cancer that afflicts our women. It would indeed be very helpful if the Cytology test is made a mandatory act whenever a woman is examined, not only by a Gynaecologist but also at a primary health centre or elsewhere, wherever family planning work is being undertaken. This will of course lead us to the next problem that will arise on the horizon viz - how to train a sufficient number of Cyto-technicians and Cyto-technologists to meet this need. Many calls of these kind have been heard before, but I feel sure that if we keep on repeating these suggestions time and again and if our Academy will take the first practical step for its execution, by planning to train cyto-technicians, this hope will be fulfilled in the foreseeable future.

With warm personal regards to all Members,



(D. J. Jussawalla)

Dr. D J. Jussawalla is a internationally well-known Cancer specialist and is a founder Secretary of the Indian Cancer Society.

He is a director of Tata Memorial Centre at Bombay, a leading cancer institute in entire Asia. He is a senior surgeon at the Tata Memorial Hospital and has been on its staff since its inception in 1942. In 1977, he was elected the Chairman of the Asian Federation of Cancer.

He is in the forefront in the fight against Cancer in India. He has advocated time and again, the importance of research, early detection of the disease, new modes of treatment and rehabilitation of cancer patients.

We are proud to have him as our President. Under his guidance, we hope the academy will prosper further. — *Editor.*



DELIGATES AT THE G.T.H ANNUAL CONFERENCE — BARODA.

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Editor of Newsletter :

Dr. U. Saraiya, Bombay.

GUEST EDITORIAL

TEN YEARS OF ACADEMY

By Prof. **P. N. WAHI**

*M. D., D. Sc., F. R. C. P. (Lond) F. C. Path (Lond)
F. A. M. S., F. N. A., F. I. A. C. (Hon).*

The Indian Academy of Cytologists has completed a decade of its existence this year, having been founded in 1970 at a seminar on Cytology at the Indian Council of Medical Research, New Delhi. 15 pathologists interested in Cytology attending the seminar decided to create a common forum with the purpose of bringing together clinicians, pathologists and cytologists to recognise cytology as an independent laboratory discipline for research and investigation. The Academy has attained this goal within a short period of ten years - a commendable performance.

Since its first application by Virchow and its first introduction into diagnostic laboratory medicine by Papanicolaou, cytology has made a tumultuous progress. Clinical or diagnostic cytology has now been widely accepted as a useful tool in the diagnosis of cancer and other human diseases, and has taken its place besides other recognised branches of laboratory medicine. The 'Smear test' or the 'Pap test' which when first described,

was not considered as a significant diagnostic procedure has helped to save more human lives from cancer in recent years than any other single procedure.

There has been another dimension added in last few years to evaluate the status of the uterine cervix epithelium in women using oral contraceptives or intrauterine devices. These women constitute a 'high risk group'. The constant follow up by regular vaginal smear examination is essential to ensure the universal acceptance of contraception as necessary for preservation of family health. The I. C. M. R. deserves credit for setting up cytology screening centres with the contraceptive testing units in different parts of the country, as also the National Reference Centre at the head quarters.

Considerable development has taken place in the newer methods for application in the field of clinical cytology, like the study of the cells with fluorescence and phase contrast microscopes, and the use of interference microscope for the determination of cell mass. The exploration of ultra structure of cell with electron microscope has contributed a great deal in the understanding of the cellular structure, and the correlation between cell structure and cell function. The demonstration of sex chromatin, and of abnormal chromosomes has brought clinical cytology in contact with cytogenetics. The intracellular incorporation of radioactive substance and its photographic demonstration by the method autoradiography has cast considerable light on the metabolic processes of the cells.

Immunocytology is another new method which promises considerable hope for clinical cytology. It is based upon the principle of demonstrating the presence of certain antigens in cells exposing them to certain antibodies which have been rendered fluorescent. The demonstration of specific cells by the fluorescent method is still in the early stages of development, but once it is perfected it should perhaps make it possible to distinguish between cancer and normal cells on an immunologic basis.

The Indian Academy of Cytologists during the short period of Ten years has been effectively productive in creating cytology consciousness in clinical medicine in this country. Realising that for

(Continued on page 17)

A Synopsis of Guest lecture given by Prof. Erica Wachtel of London

"The Scope of Endocrine Cytology"

Hormonal assessment by means of cytology is based on the fact that the stratified squamous epithelium of the vagina alters its height and structure in accordance with the type and concentration of the circulating sex hormones. Smears for endocrine evaluation should be prepared from the vaginal aspirations, scrapes of the upper third of the lateral vaginal wall or from urine sediment.

Hormonal interpretation of smear patterns is a rapid, Cheap and useful guide to the endocrine status of the patterns; it is particularly valuable in countries where there are no facilities for more elaborate laboratory tests. It can be applied to the study of the menstrual cycle, especially with a view of establishing the time of evaluation, and in anovulatory cycles to determine the degree of the hormonal deficiency. In the pregnant patient it represents the quickest way of establishing malfunction of the placenta. It is useful, and in certain cases diagnostic in the evaluation of various forms of amenorrhoea and can be employed as a control of hormone therapy for these conditions. It is also valuable in the assessment of estrogen deficiency in postmenopausal women and as a guideline to the effectiveness of hormone replacement therapy.

Less well known applications are the investigations of hormone levels in the newborn, the diagnosis of precocious puberty, delayed menarche and corroboration of suspected hormone producing



*PROF. KAMALA CHANDRA R.
PROF. WACHTEL IN A HAPPY MOOD AFTER
THE GUEST LECTURE*

tumours It can also be used to reveal hormonal disturbances in the presence of malignant tumours in the gynaecological tract and, in certain cases, as a test of successful treatment of gynaecological cancers. The potency of new hormonal preparations can also be tested easily by vaginal cytology.

Review of Vagincervical Cytology With Exogenous Estrogens & Progestins

ORATION - 79

by Dr. Katayun D. Virkar.

The review included the work done on cytology of

- 1) Oral Contraceptives
(a) Combination (b) Sequential (c) Progestin alone.
- 2) Estrogens in menopausal women.
- 3) DES Syndrome.
- 1) *Oral contraceptives* although used on a large scale showed a declining use in western countries in 1977 due to serious side effects of



Dr. Virkar is at present Consultant to Family Planning Association of India. Till recently she was Assistant Director, Institute of Research in Reproduction In addition to a vast experience in Clinical Obstretic and Gynaecology, she has a number of years of Research experience with I. C. M. R. She has travelled widely in India and abroad. Dr. Virkar is married to a Surgeon and is the proud mother of two brilliant boys.

thromboembolism. As yet the relationship between steroidal contraceptives and cancer of cervix has not been established. Epidemiological studies of cancer of cervix have shown that age at first intercourse and number of sexual contacts are important determinants for

its occurrence. It is postulated that some carcinogenic agent might be transmitted by coitus either through semen or smegma as some studies have shown that barrier methods of contraception have a protective influence. In establishing the relationship of oral contraceptives and cancer of cervix we have to take into account the enviromental and behavioural variables and the prolonged period of development of the disease from the pre-malignant state of dysplasia to cancer. The studies presented showed conflicting results, some showing no change and others significant increase of incidence of cancer cervix, specially in-situ cancer, in oral contraceptive users. The cytology studies carried out in the Institute for Research In Reproduction did not show any increase in cervical neoplasia in oral contraceptive users as compared to non users. The same studies also did not show any increase with low dose progestin alone or minipills. In the western countries where sequentiapills had been used for many years, a number of reports have been published showing the relationship between hyperplasia and adenocarcinoma of endometrium and sequential pill.

- 2) *Estrogens in menopausal women.* Vaginal cytology is one of the simplest tools to judge the effect of estrogen treatment. Cytology studies have shown that there is an association between estrogen and endometrial hyperplasia and cancer in menopausal women. Cytological monitoring of menopausal women using estrogens is essential to detect early changes.
- 3) *DES Syndrome.* A most interesting discovery has been the reports of vaginal adenosis

(Continued on page 13)

A Study of Endometrial Cytology-150 Cases

Endometrial aspiration was first tried as early as 1943 by Dr. George Papanicolaou. However, only after the introduction of Jet by Gravlee in 1969 and of metal helix by Milan and Markley in 1976, that it has become easy and popular. The great advantage of this procedure is that it is an office procedure. Whereas by routine cervico-vaginal smears only 60% of endometrial carcinomas can be detected in best of hands, diagnosis by aspiration approaches 100%. Also many clinically unsuspected cases can be detected from the cavity.

In this study, carried out at the Cama and Alless Hospital, the aspiration was first attempted with the help of a 10 ml. syringe to which a blunt nosed, perforated canula was attached. However, material obtained was inadequate in many cases and aspiration was then attempted by the 50 ml. Menstrual Regulation syringe. Material obtained was subjected to cytologic and histologic study. Patients were checked for any signs of infection a week later when they come for reports. In our series no one had infection.

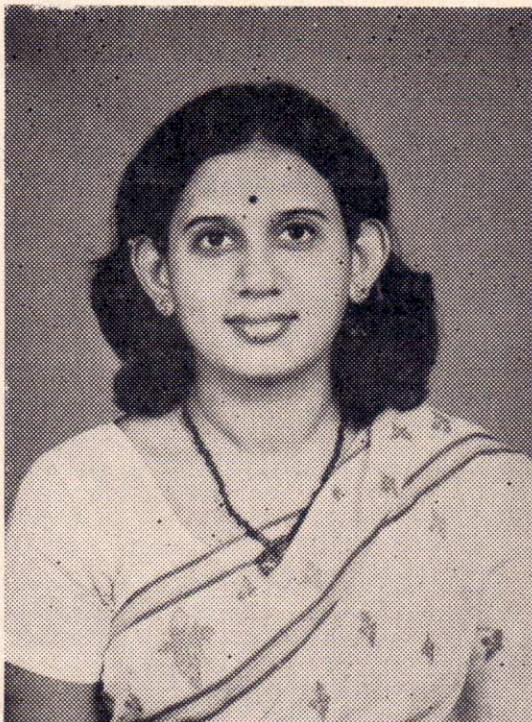
150 cases of irregular bleeding were subjected to aspiration and the entire study was blind.

Cytology and Histology were read independently. In 116 (77.33%) material was adequate to make a diagnosis on the basis of aspiration cytology, confirmed by either aspiration histology or routine procedures like curettage or hysterectomy. In 104 of 116 cases material was enough to do cytologic and in 6 of them us was tightly closed.

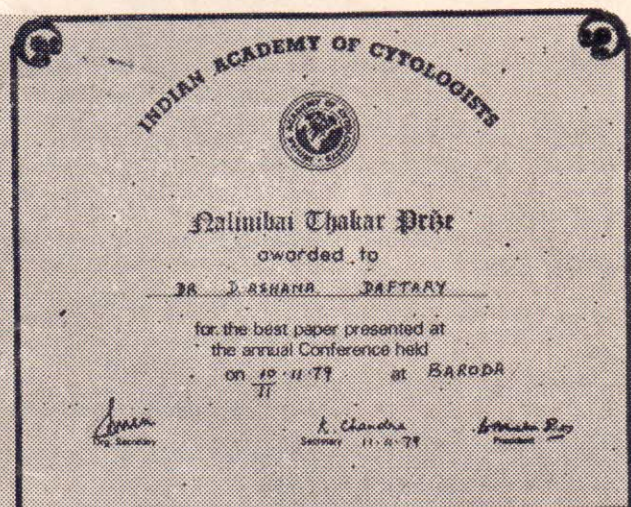
Endometrial pathology was detected in 39 cases. In 35 (23.3%) varying grades of hyperplasia were observed. 2 cases were of adenocarcinoma and 2 of Tubercular endometritis. In addition we had 3 cases of invasive carcinoma of Cervix, 2 of micro-invasive carcinoma each, had hyperplastic endometrium. 2 cases each monilia and trichomonas vaginitis were also observed.

Of 35 cases of hyperplasia, 20 had focal lesion. 16 of these were adenomatous type. 5 correlated well cyto-histologically, 11 were overdiagnosed as having diffuse lesion and 3 missed as normal. In 1 case material was inadequate. Focal hyperplasia is a tricky lesion and is difficult to diagnose cytologically. This is made more difficult by the transient nature of the lesion during reproductive

(Continued on page 13)



Dr. Darshana Daftary is Hon. Cytopathologist at Cytology Clinic (A. M. W. I.) Cama & Alless Hospital and at Nanavati Hospital. She did her M. D. from Seth G. S. Medical College. This study was sponsored by a Fellowship from Women Graduates Union.



ACADEMY NEWS

by

Dr. Kamala Chandra

Secretary

MAMC, New Delhi.

The IX Annual Meeting of the Indian Academy of Cytologists was held on the 10th and 11th of November 1970 at Baroda. A number of members from all over India attended. There was a Diagnostic Slide Seminar and a clinico - cytological conference. Over 30 papers were presented covering a wide range of topics. Dr. Darshana Daftary was awarded the Nalini Bai Thakar Prize for best presentation.

The high light of the conference was Dr. Erica Wachtel's guest lecture on "Scope of Endocrine on Cytology". It was informative and stressed on the limitations of evaluation of hormonal status by cytological examination.

Dr. K. D. Virkar's oration on "Review of vagino cervical cytology with exogenous oestrogen and progesterone" was the result of her pains taking work and gave us a lot of information.

We thank Dr. Suresh Amin for the comfort and cordiality extended by his team.

Office bearers of the council for 1980 were elected.

Dr. Usha Saraiya is the recipient of 1980. The venue for Conference in 1980 is Hyderabad by the kind courtesy of Dr. D. Bhaskara Reddy.

The following members were admitted to the Academy.

1. Dr. N. K. Chaturvedi,
Department of Pathology,
MAMC, New Delhi.
2. Dr. (Mrs.) J. Dyal,
M. P. Shah Cancer Hospital,
Ahmedabad.
3. Dr. Suresh Desai,
Consultant Pathologists,
C/o Dr. S. Amin,
Baroda.
4. Dr. V. Doctor,
Breach Candy Hospital,
60-A Bhulabhai Desai Road,
Bombay--26
5. Dr. G. Jayaram,
Department of Pathology,
MAMC, New Delhi.
6. Dr. L. S. Joshi,
Surya Darshan,
opp. Krishna Housing Society Station Road,
Anand -- 39900, Gujarat State.
7. Dr. Santha Krishnamurthi,
Assistant Pathologist,
Tata Memorial Hospital,
Parel, Bombay.
8. Dr. P. A. Mehta,
Assistant Professor of Pathology,
Cancer Hospital,
Ahmedabad.
9. Dr. M. K. Laljthabai,
Assistant Professor of Gynaec. Pathology,
Medical College, Trivandrum,
Kerala.
10. Dr. B. N. Parikh,
E 195, Ayojan Nagar Society,
Jivraj Park Road,
Ahmedabad.
11. Dr. B. C. Patel,
Honorary Prof. in Gynaecology,
Medical College
Baroda.
12. Dr. N. J. Patel,
Pathology Laboratory,
opp. Santaram Tower Nadiad - 387001.
13. Dr. M. B. Sampat.
10, Best View,
Raghaoji Road,
Bombay - 36.
14. Dr. Saroj Ramesh,
Reader in Pathology;
Medical College,
Ahmedabad.
15. Dr. B. S. Shah,
Pathologist to Gulab Bai General Hospital,
Ahmedabad.
16. Dr. T. Singh,
Department of Pathology,
MAMC, New Delhi.
17. Dr. G. V. Talvalkar,
Department of Pathology,
Tata Memorial Hospital,
Bombay - 12.
18. Dr. R. Yadav,
Department of Pathology,
MAMC, New Delhi.

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years as indicated by Abrahamson and Driscoll (1966).

Of the remaining 15 cases of diffuse hyperplasia 10 were adenomatous type, 3 cystic glandular and 2 showing combined lesion. Of these 11 correlated well and 1 was thought to be having focal lesion. In 2 cases material was inadequate for cytologic study. Remaining was a case of carcinoma cervix where malignant cells had overshadowed the endometrial pathology. However, aspiration histology and subsequent hysterectomy detected cystic glandular hyperplasia. Of the 10 cases in whom routine procedures were carried out, 3 failed to reveal the lesion, this discrepancy can be explained (apart from the transient nature of the lesion), on the basis that the cornual ends and area just above the endocervical canal remain inaccessible on curettage. Also the standard procedure of taking a single section from anatomically normal uterus would miss cases of focal hyperplasia.

Of the 2 cases of adenocarcinoma diagnosed on aspiration histology and confirmed by hysterectomy, one was detected cytologically. It was a clinically silent case.

Of 2 cases of tubercular endometritis, 1 was correctly diagnosed cytologically and histologically. In the other case the uterus was tightly closed, and presence of a single giant cell in the smear did give us a clue.

Our accuracy of identifying hyperplastic smears in 80% of cases compares well with others. (Fox et al, 1962-77.75%; Lukeman, 1974-75.8%) Also, our overall failure rate of 20.67% appears high. But we have attempted only a single aspiration whereas others do as many as 3 to 4 aspirations per patient. In 9 of these cases, follow-up studies did not reveal any abnormality.

Thus we feel that though Gravlee Jets and Milan & Markley's Helix are the best, a simple M-R syringe can be used with good results

OBITUARY

1. Dr. Shanta S. Rao Director of Institute for Research in Reproduction passed away after a brave fight against Leukemia. Dr. Rao was keenly interested in Cytology and gave full facilities of her institute for all activities of Cytology.

2. Dr. Shirin Mehtaji, a life member and till recently Hon. Consultant at Cama Hospital passed away in March after a short illness. She was founder Treasurer of Cytology Clinic, Cama Hospital and is being deeply mourned by a large circle of friends and colleagues.

HYDERABAD CALLING

It was decided at the 9th annual conference of Indian Academy of Cytologists held at Baroda, that the next annual conference will be held in Hyderabad. Organising committee is making all efforts for the success of the 10th annual conference which is going to be held for 2 days on 25th and 26th October.

The scientific sessions will include The Academy Oration by Dr. Usha Saraiya, Diagnostic Slide seminar by Dr. Kusum Verma and a panel discussion. As usual some sessions will be devoted to preferred papers from Members. It is hoped that many youngsters will come forth to compete for the Thakar Prize. This year too, we hope to have some eminent Cytologist from abroad to give the Guest Lecture.

Apart from the scientific session there will be sight seeing programme for the delegates and their families. Hyderabad being an historic city there are many places of tourist interest. The weather during this period will be pleasant.

Shyamala Bhaskaran

(Continued from page 7)

occurring in the offsprings of mothers treated with diethylstilbestrol in early pregnancy now known as DES Syndrome. Cytology plays an important part in its detection and direct four quadrant scrapings from vagina are recommended. The smears show presence of columnar and metaplastic cells and sometimes dysplastic or early malignant cells.

On summarising we can say that an association between estrogen and endometrial carcinoma in menopausal women, between sequential type of oral contraceptive and endometrial cancer and vaginal adenosis in young girls with use of DES by their mothers in early pregnancy has been established. But, as regards oral combination pill and cervical neoplasia no conclusions have been reached.

GYNECOLOGICAL CYTOPATHOLOGY

Edited by : **M. J. Ayala** and **F. N. Ortiz**,
The C. V. Mosby Company,
Saint Louis, Missouri,
U. S. A. 1979.

The increasing importance of cytology is manifested by the numerous new books being published by different schools of cytology. The above book contains subjects discussed in the lecture courses on gynecological cytology held annually at the Instituto Provincial de Obstetrica & Gynecologia de Madrid. It gives a good opportunity to English speaking cytologists to acquaint themselves with the work of Spanish School of Cytologists besides the usual American and English Cytologists. The book will be of interest particularly to Gynecologists and Gynecocytologists as the contributors are not only from the pathology and cytology departments but also from the obstetric and gynecology departments. As required by any publication on cytology it contains excellent colour and black and white illustrations with suitable legends. The book not only contains the usual subjects related to gynecological cytology but includes modern topics such as cytological findings of amniotic fluid to determine fetal maturity, lesions of breast, relationship between cytology and colposcopy and urocytogram, a technique for obtaining information on variations in a patient's hormone levels of estrogens and progestins. Realising the importance of cytohistological correlation, each chapter contains reference and illustration of the histology of the organ under consideration. The chapters on histology of cervical dysplasia and carcinoma and the origin development and propagation of cervical cancer are very well written and illustrated. It will be a useful reference book for gynec cytologists.

K. D. Virkar

This book will be read with pleasure by all those involved in the Research and Management of Cancer Cervix. It is an absolute must for all Post-Graduate Reference Libraries, not only of Departments of Gynaecology but to those of Pathology, Cancer Hospitals and Cancer Research Centres.

(**USHA B. SARAIYA**)
MD DGO FIAC FICS.

“ COLPOSCOPY ”

Second Edition by **Malcolm Coppelson**,
Ellis Pixley and **Bevan Reid**
Published by **Charles C. Thomas** 1978.

This monograph on Colposcopy is beautifully written and illustrated and thus is a most welcome addition to current literature.

Although, traditionally, Colposcopy has been known as an European art, the authors are from Australia and there are valuable contributions from American workers. It therefore overcomes the "language Barrier" which has kept most of the literature on the subject out of the reach of the English speaking world.

Colposcopy is still a new field in India and very few centres exist where this diagnostic tool is available. However, the magnitude of the problem of cancer cervix looms high. Cytology has succeeded in making early diagnosis possible and perhaps if used together with Colposcopy, the emphasis may shift rapidly from late to early lesions.

The book begins by reviewing the scientific basis for Colposcopy. The terminology used has been updated in view of recent advances. Each lesion is amply illustrated with high magnification micro photographs and cytological and histological patterns are correlated.

"Angio-architecture" is perhaps a new word for most Gynaecologists. Meaning essentially the pattern of blood vessels on the cervix, angio-architecture forms the basis on which Colposcopic diagnosis is based. The diagnostic problem of pre-clinical invasive cervical cancer can be largely solved by Colposcopy. Many lesions which may be missed by naked eye inspection, palpation or probing are found to be obvious overt invasive lesions on Colposcopy and thus facilitate biopsy.

The proponents of Colposcopy have time and again emphasised the practical value of Colposcopy. But the fact remains that not many have taken to this instrument. The authors amply clarify this position and suggest a "practical compromise" by restricting colposcopic examinations to all women with abnormal cervical Cytology.

Routine screening of normal women is recommended for training Colposcopists. Reduction in the number of cone biopsies and conservative treatment of lesions upto CIS are possible and safe only in Clinics where reliable Colposcopic facilities exist. If anything can be said to be lacking, it is the absence of any coloured photographs. This is perhaps because it would have increased substantially the publishing costs.

(Continued from page 3)

any extensive cytological studies availability of competent technical personnel is necessary, the Academy organises training programmes for Cyto-technologists and Cytotechnicians, and has also instituted fellowships. The Indian Council of Medical Research has also made a very significant contribution by setting up a collaborative study to evolve a common language for cytologists by standardisation of nomenclature. The recent creation of I. C. M. R. Cytology Research Centre is yet another step towards defining its status.

Another achievement of academy has been the setting up of an Accreditation Committee for the purpose of certification of laboratories for their reliability. This is a very desirable step, as with the increasing use of cytology in the country, more and more cytology laboratories are coming up with variable standards. In order to have a reasonably uniform standard, an official recognition or as it called 'accreditation' had become imperative. This is done with the goal in mind to use certification procedure as a stimulus for quality control and excellence. The Academy has ensured this by regular inspection of laboratories to sustain an acceptable standard. The election of the Indian Academy of Cytologists as a member of the International Academy of Cytologists has made this all the more imperative. The Academy's international status has also been recently recognised by its

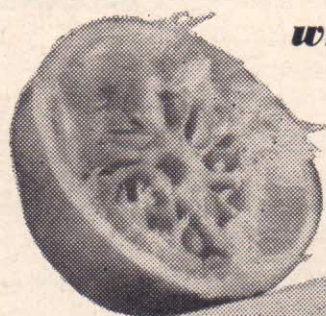
election as an Independent member of the 'International Union Against Cancer'.

To ensure the supply of properly trained manpower the Academy has taken another major step by defining training programmes for Cytotechnicians and Cytotechnologists with prescribed curricula, and recognising laboratories for the same. It is also planning to conduct a national examination which will give the technicians a laboratory status.

The introduction of 'Pap smear test' is credited with reducing the cancer uterine mortality by fifty percent in some parts of the world. This is still an objective which is far from achievement in this country. But this is a challenge we can not ignore. The medical profession is to be convinced of the significance of the smear test for screening and early detection of cancer. The fight against cancer will only show result when every physician is motivated and trained to establish a Cytology Laboratory in his own clinic. Similarly the government has to be convinced that Cytology laboratories are an indispensable component of any cancer control programme.

The Indian Academy of Cytologists has an important role to play in pursuing this concept with both the Government and the people. I feel convinced that the coming decade will see the fulfilment of this objective.

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The first all correct answer was sent by Dr. ANSAR A. KHAN, from Aligarh.

** We regret the fact that reproductions even though on art paper were not satisfactory. The Press has agreed to rectify the matters in future. So do please send your interesting photographs.*