

CANCER IN NEPAL

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Since the Histology Department was established two years ago in the Central Health Laboratory, Kathmandu, we have examined a total of 369 surgical biopsies received from Bir hospital, Kathmandu and other hospitals in Nepal. Of these only a few came from outside the valley. However these 369 biopsies do not represent the total number of operations done in the same period in these hospitals. In the initial period of development of the laboratory, we had to face a multitude of problems such as nonavailability of fine chemicals, alcohol, acetone, specimen containers and so on. Due to these shortcomings even though we desired, we could not undertake to examine all the specimens that we received in our laboratory during this period. Many of the problems we had been facing for the last two years have not yet been fully solved but we must say that we are in a slightly better position this year chemicalswise and we have been able to section 170 biopsies in the first three months of this year of 2026 (Mid.-April to Mid.-July 1969). We have not included the latter figures in this preliminary report on cancer in Nepal,

All histologically examined biopsy specimens from Baisakh 2024 to Chait 2025 (April 1967 to April 1969) have been included in this short Preliminary Report on Cancer in Nepal. Out of 369 biopsies 77 were cancers of various types from different sites. Since no such figures have been published before we hope this would be of some help to future work on cancer in Nepal. Since the laboratory service is an innovation of recent origin in Nepal and interdepartmental communication is still in rudimentary form much of the clinical information vital to the pathologist is lacking in the request forms sent to us. That is why we have not been able to state more than "squamous cell carcinoma of skin" (!) in many cases in this retrospective study. This is just an example of incompleteness of information.

Epidermoid Carcinoma

Table 1

| | | | | | |
|--------|----|--------------|---|-----------------|---|
| Penis | 4 | Neck skin | 2 | Jaw | 1 |
| Cervix | 12 | Sec. in L.N. | 2 | Urinary Bladder | 1 |
| Anus | 2 | Sita ? | 4 | Nose | 2 |
| Lip | 1 | Endometrium | 1 | Skin foot | 2 |
| Gum | 2 | Tongue | 1 | Scalp | 1 |

Total number of Epidermoid Carcinomas-37, Male -17, Female -20.

Table 1 shows total number of epidermoid carcinomas histologically diagnosed during the period mentioned above. There were altogether 37 cases of epidermoid carcinoma from various sites of which cervical alone were 12. Altogether 28 biopsies from cervix were examined and twelve cases were found to be carcinoma cervix. Apparently this gives a very high incidence of cancer in a random biopsy (42.87%). But these biopsies were taken in selected and suspicious cases only. It has been estimated that 2 out of every 100 women develop cancer of cervix at the age of 40 years (Novak 1967). The incidence of cervical cancer among Jews and Muslim women is far less than other ethnic groups. The practice of performing circumcision of male population as a religious rite in these people may have something to do with this low incidence of cervical carcinoma. On the other hand there is a high incidence of Cervical Carcinoma among Puerto Rican and Negro population.

There were five cases of carcinoma from the region. All were well differentiated squamous cell carcinomas. Quite a sizable population in Nepal has Pan (Beetlenut)chewing habit which among other things contains lime and even jarda (a tobacco preparation) grains. In the hills many people chew raw tobacco, and it is not uncommon to find a gentleman from Southern Nepal who chews Khaini (a concoction of tobacco and lime). We have no information whether any of these cases had the habit mentioned above.

All the four cases of carcinoma of penis had fully differentiated squamous cell carcinomas. It is interesting to note that in the United States less than 2% of all cancers in male occur in penis. It is uncommon to find carcinoma of penis in the Muslims whereas the Hindus have about 10% incidence. (Anderson 1966) The presence of foreskin perhaps is the predisposing factor and irritation by retained smegma, phimosis, trauma etc. is the exciting cause of carcinoma of penis.

There was one case of basal cell carcinoma arising from the perianal region, one from scalp (basosquamous type), and two were from unknown sites (No sites were mentioned in the request form).

There was only one case of squamous cell carcinoma arising from the urinary bladder. This was in a patient who lived in the Eastern Terai who developed carcinoma at the age of 72 years. There was no history of exposure to aniline dyes.

Adenocarcinoma

Table 2

| | | | |
|-----------------|---|---------------------------|---|
| Breast | 5 | Rectum | 3 |
| Endometrium | 1 | Hypernephroma | 1 |
| Stomach | 2 | Prostate | 1 |
| Omentum | 1 | Pancreas | 1 |
| Liver (Primary) | 1 | Liver Secondary from G.I. | 2 |

Total number of adenocarcinomas—18, Male—6, Female—12.

Adenocarcinoma of breast associated with much desmoplasia is called scirrhous carcinoma. All five cases of this series were scirrhous. Carcinomas of breast has nearly twice the rate of malignancy found in any other site of either sex. In our short series however we received a total of 6 biopsy specimens from the breast tissue and 5 were found to be carcinoma. We have to wait for some years to get statistically significant figures for Nepal.

There were 3 cases of adenocarcinoma of rectum and 2 cases of secondary deposits in the liver, primary being some where in the gastro-intestinal tract. There is a religious prejudice against desecration of dead bodies in Nepal, and as there is understandably no legal statute requiring the hospitals to perform postmortem for diagnostic and scientific purposes, we are merely looking through the keyhole. There were 2 cases of carcinomas arising in the stomach. We had altogether 7 cancer cases from the gastrointestinal tract. Stomach cancer used to be the most commonly met cancer in the G.I. tract until a few years ago, but it is showing a decrease in incidence: at the same time there has been an increase in the incidence of Carcinoma colon and rectum. One case of adenocarcinoma from omentum reported in this series also probably came from the gastrointestinal tract as adenocarcinoma does not arise from omentum.

There was one case each of carcinoma from liver, endometrium, kidney, pancreas and prostate. No comment is required at this stage.

Lymphoma and others.

Table 3.

| Malignant Lymphoma | | Sarcomas | | Teratoma/seminoma | |
|--------------------|---|-------------------|---|-------------------|---|
| Lymphoma | 6 | Connective tissue | 1 | Teratoma testis | 1 |
| Hodgkin's Disease | 6 | Endometrium | 1 | Seminoma testis | 2 |
| Total 12 | | Nose | 1 | Total-3 | |
| Female 3 | | Fibrosarcoma | 1 | | |
| Male 9 | | Total 4 | | | |
| | | Female-2 | | | |
| | | Male-2 | | | |

Others: Secondary in the Lymphnodes (with no differentiation in the record)-3 all male.

In this group there were 12 cases of Lymphoma of which 6 were Hodgkin's Disease and 6 were Lymphosarcoma. No case of Follicular Lymphoma or Reticulum cell Sarcoma was found among these 12 cases. Hodgkin's Disease is the most common tumour; 30-56% of the malignant tumours of lymphoid tissue have been reported to be Hodgkin's disease. (Lumb 1954) Lymphosarcoma, being the second most common tumour of lymphoid tissue. It is no wonder not to find Follicular or Reticular cell lymphomas in this short series. In Gall and Mallorys series (1942) 6.8% cases were classified as Follicular lymphoma from among 618 tumours of lymphoid tissue. (Lumb 1954)

There were not enough cases of other malignant tumours to necessitate any comments at this stage.

In conclusion we would like to say that this preliminary report is a very sketchy outline of various types of malignant tumours found in the biopsy specimens in this laboratory. Perhaps in a few years time we would be able to give more information about the incidence of various types of cancer in Nepal.

We would like to extend our sincere thanks to Dr. L. Poudyal M.B.B.S., D.C.P., D. Bact., Superintendent, Central Health Laboratory, Kathmandu, for his guidance and encouragement for preparing this article. Our thanks are also due to Mr. M.B. Dougal who kindly prepared histological slides for us.

Reference

- (1) Anderson (1966) Pathology, Vol.i, 5th. ed. p.671
- (2) Lumb, G. (1954) Tumour of Lymphoid Tissue, p.34.
- (3) ibid p.71.
- (4) Novak: (1967) Gyn. &Obs. Pathology, 6th. ed. p.69

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