

subscribe to the cheerfully optimistic conclusions of Dr. Beyers is appendicitis. It seems to us illogical to take a selected group of native male adults, and to take from that group a number of cases admitted to hospital and regard that percentage as indicative of the percentage of the incidence of appendicitis among natives. It would be as unfair to take the admissions for appendicitis at army hospitals in England as a fair percentage of incidence of this disease in Europe. We doubt, indeed, very much if percentages drawn from the mine hospitals can be relied upon to give a fair indication of the incidence of certain diseases among natives. In view of this, we also doubt whether it is worth while to seek for a teleological explanation of facts that may after all not be facts. For Mr. Ellis Barker and other credulous critics it may be an axiom that cancer, appendicitis, and all other affections that in their opinion are due to civilization are eminently rare among aborigines. To us, who are trained scientific men who ought to be able to discriminate between fact and fiction, especially when the fact is clinical and the fiction largely literary, the conclusions to be drawn from such investigations as those carried out by Dr. Beyers must be guarded. While we, therefore, welcome his paper as we did that of Dr. des Ligneris which we published in March last, we regret that he has not confined himself to merely enumerating the conditions and the percentages, but has gone out of his way to publish his conclusions. These, of course, are his personal opinions, based, admittedly, on these data, but even as such they will carry considerable weight and will tend to perpetuate, we do not say the fiction, but the hitherto unproved assertion that there are certain diseases that have a definite racial incidence. We are aware that that postulate is held by many, and that there is evidence in support of it, but such evidence, so far at least as it is statistical, is insufficient to satisfy those who are intimately acquainted with the enormous part that is played by environment, nutrition, and climate in the causation of disease. We know so little about the factors that influence incidence of disease that we are grateful for any light that may be thrown on the matter, and we therefore publish Dr. Beyers' article not because we underline his conclusions, but because the data on which these conclusions are founded are of sufficient interest to demand general consideration.

Mr. Cleland, architect of the new hospital for Cape Town, has met the various surgeons and physicians of the New Somerset Hospital during the past fortnight, and discussed with them the plans for the new hospital. We understand that extensive alterations have been decided upon that will make the new hospital one of the best of its kind. The plans will be redrawn and will be submitted for final confirmation early next year.

Incidence of Surgical Diseases among the Bantu Races of South Africa.

BY C. F. BEYERS, M.B., B.S. (LOND.), F.R.C.S.,
JOHANNESBURG.

Every practitioner in South Africa has no doubt been struck by the infrequency of certain diseases among the Bantus, and probably many have dismissed the subject with the reflection that the natives, in common with other primitive races, owe their immunity to their uncivilized state. It is a matter of common knowledge that diseases of the alimentary system, such as gastric ulcer and gall-stones, are conspicuous by their rarity. Appendicitis is an uncommon disease among Bantus, while the relative and absolute incidence of cancer is a point regarding which there is still considerable difference of opinion.

No matter how interested the practitioner may be in the subject, it is seldom that he has the time or the facilities to enter into the question from a statistical point of view, and if he were so favoured he would find himself confronted with a problem which bristles with difficulties. The great rural population of 5 million natives is practically unprovided for as far as medical attention is concerned, and opportunities for investigation are necessarily very limited. Yet it is from this very population, whose habits, diet and clothing have changed so little since the days of Chaka, that we would like to obtain our statistics. Urban native populations are not always a true index of the rural population, because their diet and manner of life invariably approach to that of the European, and they are exposed to infections many of which have not yet reached the kraals. There is usually a large admixture of Euraficans and Asiatics which one should eliminate, since the former, at any rate, show an incidence of disease very similar to that of the European. Finally, in an area like the Witwatersrand, there are thousands of "mine boys" who form a class of healthy male adults working under special conditions, and exposed to accidents and diseases essentially of an industrial nature.

Since information regarding the rural population is lacking or very incomplete, one is compelled to fall back on figures obtained from our large hospitals, and I thought that a short account of the common surgical conditions met with among the Bantu in-patients of the Johannesburg Hospital would be of interest. The population, approximately 200,000, from which these patients are drawn is one which is fairly representative of the Bantu races, being composed of men, women and children of different tribes, and whose occupation is mainly that of labourer or domestic servant.

The period under review is from March, 1921, to March, 1926. During these six years 18,000 Bantu patients were admitted to the non-European wards of the Johannesburg Hospital. Of the surgical cases

a very large proportion suffered from some or other form of trauma, a point which it is necessary to bear in mind in considering the incidence of surgical disease.

In going through the records of the Bantu patients I have omitted all doubtful cases, and have enumerated only those where the diagnosis rests on pathological or operative findings or on reasonable clinical grounds. I am indebted to Dr. R. P. Mackenzie, Superintendent of the Hospital, for permission to publish these figures.

TABLE OF PRINCIPAL SURGICAL CONDITIONS OCCURRING AMONG 18,000 BANTU IN-PATIENTS OF THE JOHANNESBURG HOSPITAL BETWEEN MARCH, 1921, AND MARCH, 1926.

1. *Malignant Disease.* 106 cases (*Carcinoma* 75, *Sarcoma* 31).

Carcinoma:

Liver	22	Pharynx	1
Uterus	12	Pancreas	1
Breast	11	Peritoneum	1
Stomach	7	Kidney	1
Skin	5	Penis	1
Colon	4	Thyroid	1
Œsophagus	3	Lung	1
Bladder	2	Larynx	1
Parotid	1		

Sarcoma:

Bones	8	Liver	2
Connective Tissues of Legs and Arms	7	Glands	2
Orbit	6	Nasopharynx	1
Testicle	3	Abdomen (?)	1
		Brain	1

2. *Innocent Tumours and Cysts.* 89 cases (*excluding Keloids*).

Keloids, very common.		Lymphangioma	4
Lipoma	30	Hæmangioma	3
Ranula	17	Chondroma	2
Fibroma	11	Mixed Parotid	2
Epulis	11	Multiple Exostosis	1
Adenoma (Thyroid)	8		

3. *Surgical Tuberculosis:*

Lymphatic Glands	186*
Bone and Joint Disease	110
Abdominal Cases	44*
Genito-urinary	12
Breast	1
Brain	1
Ganglion of Wrist	1

* These figures include a few Eurafrikan and Asiatic cases.

Bone and Joint Cases:

Spine	45	Wrist	2
Hip	23	Shoulder	1
Knee	22	Sacro-iliac	1
Ankle	7	Other Bones	5
Elbow	4		

Genito-urinary Cases:

Epididymis	8
Kidney	2
Tubes	1

Syphilis. 536 cases.*

*Other Infections.**

Pyogenic Infection, very common.	
Ulcers of Leg, very common.	
Acute Abscess	287
Septicæmia	21
Tetanus	11
Erysipelas	8
Anthrax	8
Furuncle	5
Glanders	1
Hodgkin's disease, not uncommon.	

6. *Alimentary System:*

Appendicitis	80
Inguinal Hernia	71
Non-strangulated	49
Strangulated	22
Suppuration around Anus	29
Intestinal Obstruction:	
Inguinal Hernia	22
Bands	9
Volvulus	8
Intussusception	5
Abscess of Liver	14
Hydatid Disease	12
Umbilical Hernia	6
Cleft Lip	5
Hæmorrhoids	5
Duodenal Ulcer	3
Cholecystitis	3
Gall-stones	1
Gastric Ulcer	1
Hirschsprung	1
Imperforate Anus	1
Patent Meckel	1
Tumours (see 1 and 2).	

7. *Genito-urinary System:*

Hydrocele	24
Pyelitis	20
Cystitis	16
Tuberculous Disease. (See 3.)	
Abscess of Breast	9
Enlarged Prostate	6
Stone in Urethra	4
Pyonephrosis	2

* These figures include a few Eurafrikan and Asiatic cases.

Perinephric Abscess	2
Orchitis	2
Stone in Bladder	1
Hydronephrosis	1
Congenital Cystic Kidney	1
Extroversion of Bladder	1
Stone in Kidney	0
Varicocele	0
Gynæcological Conditions, very common.	

8. *Endocrine System:*

Cystic Adenoma of Thyroid	8
Colloid Goitre	1
Graves' Disease.. . . .	0

9. *Nervous System:*

Hydrocephalus	7
Tuberculoma of Brain	1
Sarcoma of Brain	1
Meningoceles, common.	

10. *Locomotor System:*

Acute Osteomyelitis, very common.	
Septic Arthritis, very common.	
Chronic Osteomyelitis, very common.	
Brodie's Abscess, common.	
Prepatellar Bursitis	60
Ainlum.. . . .	14
Varicose Veins	8
Ganglion	5
Flat-Feet	3
Baker's Cyst	2
Spasmodic Torticollis	2
Metatarsalgia	1
Osteitis Fibrosa	1

I. MALIGNANT DISEASE.—One of the earliest inquiries as to the prevalence of cancer was instituted by the Natal Government in 1905. The final report, issued in 1910 by Dr. Watkins Pitchford, then Government Pathologist of Natal, stated that during the four years 1906-1909 8 deaths from cancer were reported amongst the whole native population of Natal and Zululand, *i.e.*, close on a million people. Of these cases, one was a half-caste and the other a St. Helena woman, and of the remainder, in only three was the diagnosis confirmed by the microscope. During this period also 19 specimens of cancer from living Natives were submitted for examination. Assuming that these 19 cases were all Bantus, we have a total of 25 cases of cancer in four years among a million people.

Analysis of 25 Cases of Cancer (Watkins Pitchford), "Medical Journal of South Africa," April, 1925.

<i>Carcinoma (14).</i>		<i>Sarcoma (10).</i>	
Breast	6	Connective Tis-	
Liver	2	sues of Foot ..	4
Conjunctivæ.. . . .	2	Bones	3
Skin	2	Shoulder	1
Penis	1	Abdominal Wall .	1
Cervix	1	Spleen.. . . .	1

The 25th case was one of rodent ulcer. In a paper read by Dr. Harvey Pirie before the S.A. Medical Congress in 1921, an account was given of 153 malignant tumours removed from African Natives over a period of 9 years, and all examined histologically.

Analysis of 153 Cases of Cancer (Pirie), "Medical Journal of South Africa," December, 1921.

<i>Carcinoma. 91 cases.</i>			
Liver	52	Thyroid	3
Skin	15	Breast..	2
Uterus	7	Pylorus	1
Bladder	5	Intestines	1
Pancreas.. . . .	4	Ovary	1

Sarcoma. 48 cases.
Melanoma. 6 cases.
Endothelioma. 6 cases.
Hypernephroma. 2 cases.

The outstanding feature of this analysis is the great relative frequency of liver carcinoma among Natives. Of the 52 cases, the condition was primary in at least 36. A feature of nearly every one of the primary cases was the presence of cirrhosis, confirming the generally accepted view that cirrhosis is the most important predisposing cause of liver carcinoma.

Dr. Pirie made the further interesting discovery that in 10 out of the 36 cases Bilharzia ova were found embedded in the liver, and he concludes that "Schistosomiasis may . . . be a factor in accounting for the common occurrence of carcinoma of the liver among South African natives, through leading firstly to the development of cirrhosis, on top of which a carcinoma may develop."

In a recent number of the *S.A. Medical Record* (July, 1925), Dr. MacVicar, of the Victoria Hospital, Lovedale, gives an analysis of 137 cases of carcinoma and sarcoma out of a total of 10,000 patients.

Analysis of 137 Cases of Cancer (MacVicar).

<i>Carcinoma. 97 cases.</i>			
Liver	22	Stomach	6
Floor of Mouth..	15	Breast..	6
Cervix..	15	Skin	4
Colon..	9	Rectum	3
Tongue	6	Gall-bladder	1

Sarcoma. 30 cases: half of which were bone cases.

Dr. MacVicar also attributes the frequency of liver cancer to bilharzial infection, and thinks that the unusually large number of cases in which the floor of the mouth is affected may be due to the irritation of tobacco-shewing, and possibly to the long wooden pipes which both sexes use.

Dr. A. J. Orenstein, of the Rand Mines, has been kind enough to give me the figures for 13 mine hospitals in the Witwatersrand area, in which over 200,000 patients have been treated during the six years 1919-1925.

Analysis of 49 Cases of Cancer (Orenstein).

<i>Carcinoma. 37 cases.</i>		<i>Sarcoma. 12 cases.</i>	
Liver	30	Liver	8
Pancreas	2	Brain	3
Bladder	2	Orbit	1
Colon	1		
Rectum	1		
Prostate (?)	1		

Comment.—The figures given in the above analyses do not by any means represent the true incidence of cancer among the Bantus. What this is will never be known accurately as long as native “witch-doctors” and quacks continue to flourish. Nevertheless, the figures, particularly those of the Johannesburg Hospital, show clearly that:—

- (a) *Cancer is a rare disease among Bantus.*
- (b) *Cancer does not appear to be more common in town-dwelling natives than among country natives.*
- (c) *Carcinoma is more common than sarcoma (314 to 131 of all cases).*
- (d) *Carcinoma is relatively less common in natives than in whites.*
- (e) *Sarcoma is relatively more common in natives than in whites.*
- (f) *Carcinoma of the liver is the most common form of malignant disease among the Bantus. At the Johannesburg Hospital nearly 30 per cent. of all carcinomas were liver carcinomas, the majority of which were primary. The figures for the S.A. Institute for Medical Research show an even greater preponderance. Orth states that among Europeans only 5 per cent. of all cancers are primary liver cancers, so that it is clear that there is an extraordinary difference in the race incidence of liver cancer. The average age incidence is also interesting. In the Johannesburg Hospital series of cases it was 40 years (the youngest 17), but the other series show an even lower incidence. In Europeans it is usually about 50 years.*
- (g) *Carcinoma of the uterus is the next most common form of malignant disease, though a long way behind cancer of the liver. Age incidence, 41 years.*
- (h) *Carcinoma of the breast.*—Of the 11 cases at the Johannesburg Hospital, 3 were males. Age incidence, 43 years.
- (i) *Carcinoma of the stomach comes fourth in order of frequency (7 cases), but taking all the carcinomas of all the series into account, it comes seventh on the list. In Europeans cancer of the stomach is now generally recognized as being the commonest cancer in males. Some authorities place it at the head of all cancers. The United States Census reports a distinct preponderance over all other cancers. Of the 7 cases at the Johannesburg Hospital, 5 were males and 2 females. The age incidence was 44 years, i.e., a good deal lower than in Europeans (61 years),*

- (j) *Carcinoma of the skin, chiefly of the lower extremities, appears to be relatively more common than in Europeans.*
- (k) *Carcinoma of other organs present no special features as regards incidence, though cancer of the rectum and tongue is exceedingly rare. It will be noticed that, as in Europeans, no organ is immune.*
- (l) *Sarcoma occurs most commonly in the bones and connective tissues of the extremities. For convenience' sake melanotic sarcoma is included here. This tumour occurs much more commonly on the feet than it does in Europeans. Its occurrence is of great interest in connection with pigmented races, a subject which is, however, beyond the scope of this paper.*
- (m) *Sarcoma of the orbit appears to be relatively more common in Bantus than among Europeans.*

2. INNOCENT TUMOURS AND CYSTS.—The most common is *lipoma*. My impression is that *ranula* occurs much more frequently among Bantus than among Europeans, and that *angiomas* are also more common. *Keloids* are extremely common, far more so than among Europeans. The majority of cases occurred among Basutu. The pathology of this “diathesis” is an absorbing though puzzling subject. Questions such as the following occur to one:—

Does the condition affect connective tissues in other parts of the body?

Do patients with keloids have an excess of callus in the healing of their fractures?

Are they less liable to pulmonary and other forms of tuberculosis by virtue of throwing out an excessive amount of fibrous tissue and so enhancing nature's own efforts to limit the spread of the disease?

3. SURGICAL TUBERCULOSIS.—Surgical tuberculosis is, I think, more common among the Bantu than among the European inhabitants of South Africa. The Bantu have, owing to their short contact with civilization, acquired little or no immunity to tuberculosis, and the mortality of the disease is necessarily high. It is estimated that 20 per cent. of all cases of tuberculosis among the Rand natives is surgical, the *lymphatic glands*, particularly of the neck, being affected in the great majority of cases. Owing to the prevalence of syphilis, it is often a matter of some difficulty to determine the cause of enlarged glands in a native. The typical periadenitis, which is usually so characteristic of tuberculous glands in Europeans, is frequently absent, while the glands themselves are hard, shotty and movable, and may attain a considerable size before softening is noted. Moreover, a positive Wassermann is obtained in many of these cases. Further, the age incidence of these cases is higher than in Europeans, a point which adds to the difficulty in diagnosis.

Histological examination, which was carried out in the majority of the cases recorded, is often the only method of settling the diagnosis.

Bone and joint tuberculosis is very common among natives. The local predisposition agrees almost exactly with that in Europeans. The spine is most commonly affected, then the hip, the knee and the tarsus. Second-

any infection is very prone to occur. I have been struck by the extraordinary absence of pain in the advanced cases of hip disease with complete disorganization of the joint. One can move the joint with a freedom that a white child would never tolerate.

Abdominal tuberculosis seems to be more common than it is in Europeans. Both mesenteric glands and peritoneum are affected with well-marked ascites.

Tuberculous epididymitis is common. Not a single case of *lupus* is recorded.

4. SYPHILIS.—Just how common syphilis is among the Bantu is difficult to say. It is certainly more common among the native in-patients than among the white in-patients of the Johannesburg Hospital. Twice as many native in-patients gave a positive Wassermann, though the Europeans usually outnumber them by 3 to 1. Patients suffering from obvious syphilitic lesions are not admitted to the non-European Hospital, yet during the six years under review over 500 cases of tertiary syphilitic lesions gained admission in spite of the fact that Casualty Medical Officers are fully aware of the frequency of the disease, and are invariably on the lookout for it. One may conclude that tertiary syphilitic lesions are more difficult to diagnose in the Native than in the European, and this is largely due to the prevalence of tuberculous lesions, with which the former are frequently confused.

Then there is the very large number of patients who have latent syphilis and who are admitted for other complaints.

Medical men of experience state that 50 per cent. of the Bantu population of the Union are suffering from syphilis. Dr. H. J. E. Schultz, of Witbank, who recently carried out an investigation in his district, found that about 25 per cent. of the natives there were affected (*Medical Journal of S.A.*, March, 1926). My own impression of the natives seen at the Johannesburg Hospital is that about 1 in 3 is infected with syphilis.

It has frequently been stated that when a native has syphilis he is not thereby predisposed to tubercle. My own impression is that in the Bantu such a predisposition does exist—though I am open to correction. Cases of what one might term surgical syphilis are uncommon. I have not seen a gumma of the brain in a native. Indeed, syphilis of the nervous system is very uncommon, though genuine cases of G.P.I. and tabes do occur. Syphilis of the arteries is much less common than one would expect. There are only a few cases of aneurysm on record, one of which, by the way, I wired by Colt's method. In cases of tuberculous epididymo-orchitis in which the Wassermann is positive, the condition of the body is clinically often indistinguishable from that of a gummatous orchitis. I recently saw two cases of congenital syphilis with a kyphotic deformity of the spine. In the one case the deformity was due to Pott's disease, in the other to a syphilitic osteomyelitis.

With regard to *gonorrhœa*, which is very prevalent among the Bantu, the common complications, such as prostatitis, epididymitis and arthritis, do not appear to occur as frequently as in Europeans.

5. OTHER INFECTIONS.—With regard to *pyogenic infection*, my experience is that the Bantu has a greater natural resistance to sepsis than the European. It is extraordinary how well clean cases, such as plated or grafted fractures and hernias, do in a ward full of highly septic cases. My experience of animals such as baboons is that they have a very high resistance to pyogenic organisms, and one would expect the more primitive races to resemble the lower animals in this respect. On the other hand, the resistance of the native may be very seriously impaired under certain conditions. Among mine boys it seems to be conspicuous by its absence, and even clean-cut wounds become very septic. This is now avoided to a great extent by a routine excision and suture of all newly made wounds.

Ulcers of the leg are extremely common, and are most frequently syphilitic in origin. Outbreaks of tropical ulcer occur at times among mine boys, but the condition is rarely seen at the Johannesburg Hospital. Special infections, such as anthrax and tetanus, seem to occur as frequently as among Europeans.

Varicose ulcers are exceedingly rare.

6. DISEASES OF ALIMENTARY SYSTEM.—Common conditions met with in Europeans, *e.g.*, gall-stones and peptic ulcer, are in Bantu conspicuous by their rarity. During the six years under review at the Johannesburg Hospital only one case of *gastric ulcer* was recorded. It was a perforating ulcer in a male *æt.* 38. The Wassermann reaction was not taken in this case. Three cases of *duodenal ulcer* occurred, all in males, the ages being 25, 35 and 40. There was one case of *gall-stones* in an elderly male, also three cases of *cholecystitis*, none of which were confirmed by operation.

The commonest *liver conditions*, excluding the numerous cases of carcinoma, were amœbic abscess (14 cases) and hydatid of the liver (10 cases).

There were no cases of *pancreatitis*, though I am informed that a few fatal hæmorrhagic cases have recently occurred among mine boys.

Intestinal obstruction is common. Operations were carried out for strangulated inguinal hernia in 22 cases, for obstruction by bands in 9 cases, for volvulus in 8 cases, and for intussusception in 5 cases, while a few cases were due to impaction by round worms. One would not expect to find a great deal of *constipation* in a primitive race, but my own experience is that it is quite common. An interesting point is that the condition is frequently allowed to become acute, so much so that the diagnosis of intestinal obstruction is made. No fewer than 147 cases were thus diagnosed, but in each case the real condition was fortunately recognized in time, and the patients left hospital completely relieved.

Inguinal hernia is probably as common in Bantus as in Europeans. *Umbilical hernia* is rare; only six cases were recorded—a somewhat remarkable fact when one considers that a protruding navel in the native child is the rule rather than the exception. It is possible that the condition is common enough in

these children, but that it undergoes spontaneous cure as they grow older.

Dental caries and pyorrhæa are extremely common, in spite of the popular idea to the contrary, though in some tribes—*e.g.*, the Zulus—scrupulous care is taken of the teeth. The prevalence of scurvy is doubtless responsible for a considerable number of cases. Dr. Leipoldt, in his recent paper, shows that there is practically no difference in the incidence of dental caries between Bantu and European children.

Hæmorrhoids is a rare disease among Bantu; five cases were recorded, in only three of which operation was required.

Appendicitis is a rare disease among Bantu, even among those living under European conditions. While over 500 Europeans are operated on yearly at the Johannesburg Hospital, the total number of cases occurring in six years among Bantu was 80, of which only 50 were verified by operation—a small number among 18,000 in-patients. The average age was 30 years for males and 24 for females—a good deal higher than among Europeans. The sexes were equally represented.

The 80 cases were diagnosed as follows:—

Acute appendicitis, 35, about half of which had perforated.

Chronic appendicitis, 13.

Appendicitis and salpingitis, 7.

Not specified, 25. Most of these left hospital on their own accord.

Allowing for the fact that the majority of the perforated cases were in a moribund condition on admission, the mortality for all cases was very much the same as it is for Europeans.

From particulars furnished me by Dr. Orenstein (Rand Mines), it appears that during the last six years only 37 cases of appendicitis occurred among mine boys—*i.e.*, in 13 Native hospitals with a total of approximately 200,000 in-patients.

The disease among the rural population is even rarer, though it is impossible to give even approximate figures. This rarity is in accord with what has been observed among other primitive races. Appendicitis, like gastric ulcer and cholecystitis, is a disease of civilized races, the important predisposing factor being undoubtedly diet. Rendle Short calls appendicitis a deficiency disease, the deficiency being the cellulose factor. Whether it be in the direction of under-indulgence or over-indulgence in certain foods, it seems to me that our indiscretions in diet must lead to an alteration in the pathogenicity of certain of the intestinal organisms. The "manure," if one may use the word, of the normal intestinal flora is different in the Bantu as compared with the European, and it is to be supposed that the artificial and highly seasoned "manure" in the European will be productive of a more vigorous and virulent growth of organisms. It will be interesting to see if the incidence of appendicitis will continue to increase in the urban native, as it appears to be doing now.

It has been suggested that the rarity of appendicitis in Bantu may be due partly to anatomical factors. I

have recently been investigating the normal Bantu appendix from this point of view, and hope to publish the results shortly.

7. DISEASES OF THE GENITO-URINARY SYSTEM.—*Calculi* are very rare among the Bantu. There were no cases of stone in the kidney, only one in the bladder and four in the urethra. It is possible that the latter, at any rate, were small kidney stones in process of being voided.

Bilharziosis is common in Bantu, and it is rather surprising that vesical stone formation is not more frequently found, as it is in tropical countries where this disease is prevalent.

Urinary infections do not seem to occur as often as in Europeans. Only two cases of tuberculous kidney, two of pyonephrosis, and two of perinephric abscess were recorded.

Pyelitis (20 cases) and cystitis (16) are a little more common.

Enlarged prostate is rare. Only six cases are recorded, though Dr. Eric Dyke writes that the condition is fairly common in Basutoland. The six cases were all in old men, and pathologically the condition appears to be similar to that in Europeans.

Varicocele.—Not a single case is recorded, and I, personally, have never heard of a case in a Bantu.

Gynæcological conditions, such as salpingitis, ovarian cyst, uterine myoma, ectopic gestation, are as common as they are in Europeans.

8. *Endocrine glands*.—The thyroid is the only one of these glands in which pathological changes are recorded. Nine cases occurred in all—eight cystic adenomas and one a colloid goitre. Not a single case of Graves' disease occurred during the six years, and I am not aware that Graves' disease has ever been found in a Bantu. I have not seen any cases of cretinism or myxœdema.

9. *NERVOUS SYSTEM*.—Tumours of the brain are rare, only one case of sarcoma and one of tuberculoma being recorded. My own experience is that tuberculoma is the commonest tumour of the brain in the native. I have not seen a case of tumour of the spinal cord. Hydrocephalus and meningoceles, both cranial and spinal, are fairly common.

With regard to cases of fractured skull with severe injury to brain and meninges, a striking fact is the rapid recovery from cerebral shock, the absence of the common complications, immediate and remote, so frequently seen in Europeans, and the smooth convalescence of these patients.

10. *LOCOMOTOR SYSTEM*.—Fractures and dislocations are as common as they are in Europeans. The former unite readily, while bad compound dislocations do extraordinarily well. Function is restored to an extent not often seen in Europeans.

Osteomyelitis is common, and tends to become chronic, often, no doubt, as the result of a coexisting syphilitic infection. Osteomyelitis of the jaws is more frequently seen than in Europeans. Brodie's abscess also seems to be more common. While sprains of joints are very common, there is no record of a case

of a fracture dislocation of a cartilage of the knee, nor, indeed, of any other form of *internal derangement* of that joint. This is somewhat surprising in view of the strenuous occupations many natives follow, and the fact that football has become quite a popular game with them.

Pyogenic infections of joints are not unusual in any way. There is a fairly common subacute condition of the knee-joint, the pathology of which, to me at any rate, is very obscure. It resembles a rheumatoid arthritis in that the periarticular structures are swollen and tender, and there is a marked effusion into the joint. But the condition is monoarticular, it occurs at any age, and affects men more often than women. I have had about a dozen of these cases under my care, and have failed to find a focus of infection anywhere in the body. All examinations, including those of the fluid aspirated from the joint, were negative. The treatment is simple and very efficacious—a back splint and a course of sodium salicylate. The patient is up in ten days with what appears to be a perfectly healthy joint, and, as far as I know, has no further trouble.

Deformities due to *rickets* are rare—only four cases genu valgum being recorded, and in each case the relationship to rickets was doubtful. Congenital club-foot is fairly common. Deformities due to poliomyelitis are, in my experience, not seen so frequently as in Europeans. There was one case of congenital dislocation of the hip.

Flat-feet is a rare disease (three cases only). The arch of the foot normally appears to be lower than in Europeans, but anatomically this is not so. Dr. Fouché, of Johannesburg, informs me that the appearance of flatness is due to the great development of the abductor hallucis. There is, as one might expect, no record of a case of hallux valgus or of hammer-toe, though I have no doubt the future will provide many cases.

Prepatellar bursitis is quite common—60 cases were operated on during the six years.

There were 14 cases of that curious condition called *Ainhum*, or dactylolysis spontanea. They were with one exception all males, all between the age of 20 and 40, and mostly Zulus and Msutu, though other tribes were also represented. Only the little toes were affected, bilaterally in 5 out of the 14 cases. The condition is interesting, as it is unknown in white-skinned races. It is generally agreed now that the exciting cause of the condition is trauma.

Varicose veins are rarely seen. Eight cases were recorded, in three of which an ulcer of the leg was present. Three of the cases were in multiparous women. I have no doubt more cases would be found if searched for, but it is probable that the condition seldom produces symptoms. I have heard of congenital cases in which the deep veins were also involved. I have already referred to varicocele and hæmorrhoids, and it will be clear from the figures I have given that varicosis generally is rare among Bantu. It would be interesting to know whether there is some anatomical peculiarity in the natives' veins which makes varicosis, particularly of the spermatic veins, so uncommon.

CONCLUSION.

One hears a great deal about the supposed influence of civilization on the health of the raw native, yet, apart from industrial, tuberculous and venereal disease, I do not think that the introduction of European clothing, diet and micro-organisms has made any serious difference to his health. Certain diseases, such as peptic ulcer, gall-bladder conditions, appendicitis, cancer, appear to be just as rare among the raw natives as among the "civilized" ones. Why these common diseases should be so rare in the native is a matter of conjecture, yet one of very great interest, particularly when it affects a disease such as cancer. Judging from the records of the Johannesburg Hospital, and from one's own experience, there is little doubt that the incidence of disease among *Eurafricans* is very much the same as in Europeans, and one cannot but suppose that the marked differences in disease incidence must rest on profound biological differences between the Bantu and the European.

Note.—At the last Annual Medical Congress I had the pleasure of hearing Dr. M. J. A. des Ligneris' paper on "Tumours in Northern Transvaal," which has since been published in the *JOURNAL OF THE MEDICAL ASSOCIATION OF SOUTH AFRICA*, 12th March, 1927. Dr. des Ligneris describes 81 malignant tumours occurring in 13,170 patients of the Elim Hospital, of which 58 were sarcomata, 17 melanomata, and 6 carcinomata. The extraordinary difference in the relative incidence of sarcoma and carcinoma at the Elim and the Johannesburg Hospitals is a matter which is difficult to explain, but which certainly needs further investigation. Even if the numerous cases of liver cancer be eliminated, carcinoma is still more common than sarcoma, as far as Johannesburg is concerned.

C. F. B.

The Psychology of Fads and Cults.

By B. J. F. LAUBSCHER, L.R.C.P., L.R.C.S., L.F.P.S.

The psychology of quackery has always dealt with the successes of the quack as being largely due to his personality. The result is that this interesting study has probed only one aspect of this complex manifestation, and has left out of the field of investigation that which facilitates the cures of the quack. This latter factor seems to be the most important. Within this aptitude to follow cults and quacks is embodied tradition, mythology, folklore, early environmental impressions, the mystic sense, superstition, and some distant religious associations. This is very apparent here in South Africa, where we have the two extremes of culture and its various intermediate phases, because its influence has a retrogressive effect on our civilization. By exposing and attacking quackery we medical men are not asserting ourselves because our craft is in danger, as some would have it, but we feel to a great extent as if it affects the very bedrocks of our nationhood. Some would have us wading through our present era in this ancient garb. The fact that the