The Incidence of Gall-stones in Zimbabwe

BY

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Many observers from different parts of Africa have observed the infrequency of gall-stones in Black patients. As early as 1927 Beyer and in 1934 Brebner noted its low incidence in the Bantu. Another early worker was Vint (1937), a Kenyan pathologist, who found only one case of cholelithiasis in 1000 autopsies on Africans. A little later Lopis (1947) of Johannesburg recorded that the majority of gall-stones found in the Bantu were of the calcium-bilirubinate variety, but he appeared to have excluded the possibility of the hyperbilirubinaemia of malaria. Gelfand (1950), in a series of 600 autopsies in Africans of all ages, found ten cases of gall-stones. All were of the pigment variety (calcium-bilirubinate) in healthy gall bladders, which gave rise to the inference that they were probably due to the hyperbilirubinaemia associated with malarial infection. From Johannesburg, Becker and Chatgedakis (1952) found all types of gall-stones more common in the European than in African subjects, especially pure cholesterol and compound cholesterol types. Edington (1957) remarked on the infrequency of gall bladder diseases and gall-stones in West Africa. In East Africa, Raphael Owor (1964) studied the increase of cholelithiasis at autopsy at Mulago Hospital, Kampala, over a twelve year period (1950-1962). This was 0,87% and the male/female ratio 3:5. Twenty-three of the 59 cases appeared to be pure pigment stones, 12 solitary mixed stones and the remaining unclarifiable, although the evidence suggested that many of them were mixed or pigment stones. In view of the predominance of pigment stone, he noted the size of the spleen in all. The spleens weighed over 200 g in 45 of the 59 subjects.

Shaper and Kanti M. Patel (1964) studied the diseases of the biliary tract in Africans in Uganda during the period 1955-1961. Out of the 55 000 medical and surgical admissions only 22 had proven biliary tract diseases, i.e. about 1 in every 3 000 admissions and of these cholelithiasis was an underlying feature in 15. In 8 of the 15 it was not associated with any significant degree of infection, the presenting manifestation being obstructive jaundice. Five of the patients had pain with the jaundice, 3 of them severe pain without jaundice. In the other seven patients the cholelithiasis was associated with cholecystitis and in some of them there were complications, such as biliary peritonitis, subphrenic abscess, suppurative cholangitis and hepatic abscess. From Ibadan, Parnis (1964) noted that gall bladder disease was not uncommon in Nigeria and its clinical features were as elsewhere. Gall-stones, silent throughout life, were far from rare there and he had no reason to suppose that this finding was due to any other factor than the recent availability of radiology and doctors with enough time to consider the possibilities of the existence of a disease like many others wrongly considered rare in the tropics.

On the other hand Brebner (1974), in a 13 year survey of disease at Baragwanath Hospital, showed a definite increase in gall bladder disease. Although he found this disorder, like appendicitis, duodenal ulcer and haemorrhoids rare in rural Africans as in the rest of Black Africa, the increase in gall bladder disease was fourfold. All the gall bladders in this analysis were pathological and mostly associated with gall-stones. He considered the pattern of disease in the rural African changed with urbanisation.

Calculi, as found in Harare, Central and Andrew Fleming Hospitals. 1974-1977.

These two hospitals were the main general institutions to which the two racial groups were admitted. Harare Hospital cared for Africans and drained a very large population living in greater Salisbury besides being the main referring hospital for difficult or seriously ill patients. The same could be said about the Andrew Fleming Hospital which catered almost entirely for Europeans, as the Coloured and Asian population was small.

Therefore it could be looked upon then as a virtually White hospital. Tables I and II refer to the number of gall-stones reported in the two hospitals over the years 1974-1977 (inclusive).

Table I. Harare Central Hospital
(entirely African)
Number of patients with gall-stones according to ages and sex.

Age	*Male*	*Female*	*Total*
0 - 9	—	—	—
10 - 19	—	—	—
20 - 29	1	—	1
30 - 39	—	3	3
40 - 49	2	2	4
50 - 59	1	3	4
60 - 69	1	—	1
	5	8	13

Table II. Andrew Fleming Hospital
(great majority of patients being European with relatively few Coloured and Asian patients)

Age	*Male*	*Female*	*Total*
0 - 9	—	—	—
10 - 19	1	2	3
20 - 29	5	22	27
30 - 39	5	19	24
40 - 49	11	27	38
50 - 59	12	25	37
60 - 69	20	24	44
70+	17	13	30
	71	132	203

Comment

If we study the two tables we shall notice that despite a very much larger Black population of 480 000 than a European one of 105 000, there were very much fewer patients with gall-stones seen at Harare Hospital than in the White one. It may be said that, as the average expectation of life of Africans increases, we can expect more cases of gall-stones. As we can see from the figures in the White population, there seems to be a steady increase in the number of cases from the 30's onwards. On the other hand, taking into account the very large African population, there would be many more Africans than Europeans within the 30 to 50 age group and therefore the large difference in the incidence of gall-stones in the two races would appear to be real.

Summary

This study confirms the rarity of gall-stones in the Africans of Zimbabwe. This is in keeping with the experience found in other territories in East, West and South Africa. In contrast, the European frequently develops gall-stones.

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