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ADDRESSES.

THE INFLUENCE OF AGE, SEX AND RACE IN SURGICAL AFFECTIONS.

Address of the Chairman of the Section on Surgery and Anatomy, at the
Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

BY WM. L. RODMAN, M.D.

LOUISVILLE, KY.

Gentlemen of the Section:—Allow me first to express my grateful appreciation for the honor conferred upon me at the Semi-Centennial Meeting. To be chosen as Chairman of this, the largest Section of the ASSOCIATION, is indeed an honor any one should esteem highly.

I have endeavored, with the aid of the distinguished Secretary, Dr. Parkhill, to present to you as attractive a program as has ever been offered to this or any other Section in former years. Indeed, too much credit can not be given our Secretary for his indefatigable labors and their fruitful results. We regret that his obligations to our country, now resounding from end to end with stern alarms, deprive us of his companionship and help on this occasion, to which he has looked forward with such keen pleasure, and for the success of which he is so largely responsible. I am sure that I voice the sentiments of every member of the Section, when I thank him for his work in our behalf, and bespeak for him a safe return to Denver, where his professional worth and surgical skill have long been recognized as second to none. Our loss is the country's gain, and we might well wish that all of our countrymen needing surgical attention in the pending war with Spain, may fall into hands as competent and deft as the Surgeon of Colorado's Volunteer Corps.

We also wish to express our gratitude to Dr. Powers, the Acting Secretary, who on short notice assumed the work and gave to it most intelligent and conscientious attention.

In offering for your consideration the customary Chairman's Address, I have chosen for my subject "The Influence of Age, Sex and Race in Surgical Affections." Time limits will prevent consideration of all diseases having a bearing upon the subject, and your attention will, therefore, be asked to some affections seeming to have a pointed claim to our notice.

The treatment of racial differences has been almost necessarily limited to the white and black races of North America, as but few of the many army and navy surgeons to whom I have written for data gathered by them in their various assignments, have been able to reply at satisfactory length on account of the exacting demands of the past three months.

The diseases of the negro possess an abiding interest to those of us living in the South, called upon as we are daily to give him professional succor in private, hospital and dispensary practice. Although much

that is of value has been written of his immunities and susceptibilities to disease, it has occurred to me that the last word has not been spoken, due more to the changes in the negro himself than to inaccurate observations on the part of medical writers of the past and present.

To the careful student who reviews the literature of the subject, there is no escape from the conclusion that the negro as we now find him, with changed environments, habits and associations, is a different being from what he was in antebellum days. He came to America three hundred years ago with certain immunities and susceptibilities to disease, which were so conspicuous as to be noted by all trustworthy observers. A few of the immunities he hitherto enjoyed have been maintained, more have been lost in part, others wholly exhausted, and to some few diseases he shows not only the same liability as the Caucasian, but even exceeds him in vulnerability, to-wit: local tuberculosis of glands, skin and bones. The original susceptibilities of the negro seem to have abided with him, and to have undergone less change, he still being as obnoxious to fibroid and other benign neoplasms as he has ever been, as well as to keloid, elephantiasis and tetanus. Not only is the race manifesting an increasing tendency to disease of all kinds, but statistics of every Southern hospital will prove them to be less resistant and to show a larger mortality, both in medical and surgical affections (operative and non-operative cases), than the Caucasian. The full-blood is less resistant to begin with, and the mulatto inherits the weaknesses of both races, the strength of neither, and begins life with the heaviest of handicaps. Therefore, it is not surprising to the observant to occasionally hear such authorities as Hunter McGuire, D. W. Yandell, and other thoughtful practitioners of large and long experience with this race, say that the African will in time become as extinct in this country as the bisons and the North American Indian. It is clearly foreshadowed, that he can not maintain the struggle for life with a race his superior in every respect, in a climate to which he is ill-suited at best.

MALIGNANT DISEASE.

All early writers testified to the immunity of the African, in both his native and adopted country, to malignant disease. It can not be doubted, I think, that as a race, cancer was most rare with them up to fifty years ago. These early writings have too much influenced practitioners of this generation, however, and many reason that cancer is still rare with negroes, because such was undoubtedly the case a few generations ago.

Malignant disease (both sarcoma and carcinoma) is certainly increasing in frequency in the black with even greater ratio than in the white race. From a condition of practical immunity they have become nearly as liable to malignant disease of some organs

as the white, quite as much so to that of the mammary gland and the seemingly more obnoxious cancer of the uterus. The records of the City Hospital and Health Department of Louisville for the past thirty years are in line with the statements and statistical data of Billings and Matas, and emphasize especially the frequency of cancer of the uterus in negroes. It would be interesting to know what per cent. of the cases were in full-bloods; but it is impossible to ascertain this, as no distinction is made in our reports between full-bloods and mulattoes. Nor is it possible to determine with reasonable accuracy the relative number of cases of sarcoma and carcinoma, and therefore, no attempt is made to do so.

It is safe to say, however, that the negro is relatively somewhat more prone to sarcoma than cancer. As has been stated, the mammary gland suffers as often in the black as in the Caucasian, the uterus more so. Now it would appear *à priori*, that the negro, almost universally affected as he is with phimosi, should show a special susceptibility to cancer of the penis; yet I have never seen such a case, nor do the records of our city hospital indicate that one has been treated there in thirty years. Of 207 deaths from cancer in negroes reported to the Louisville Health Department in thirty years, none have been entered as cancer of the penis.

According to the eleventh census (just issued), malignant disease occurs in every 100,000 living inhabitants:

Whites	53.93
Negroes	36.65
North American Indians.	5.31
Chinese a little less liable than Indians.	

To every 1000 deaths from known causes in the United States in persons over forty-five years of age, there were due to cancer and tumor:

Whites	62.86
Negroes.	29.81
North American Indians	14.49
Chinese	12.99

In this country, as in England, cancer is alarmingly on the increase. Both races show a marked increment of gain, and so far as cancers in general are concerned, the increase has been about the same in the two races, as will be shown by the table giving every death from cancer in Louisville for thirty years. These records have been gone over by my assistant, and are, I am sure, reliable, as he has devoted weeks to the work. It will be seen that the number of cases has doubled each decennium.

CANCER OF ALL PARTS.

1868 to 1878—total number deaths 244; white 205; colored 39.
1878 to 1888—total number deaths 484; white 411; colored 73.
1888 to 1898—total number deaths 892; white 797; colored 95.
Total number deaths for thirty years 1620; white 1413; colored 207.

There have been 161 cancerous patients in the Louisville City Hospital during the past twenty years (1878 to 1898). The records of the decennium from 1868 to 1878 are incomplete and are therefore excluded. Of cases admitted there were 118 white and 43 colored.

1878 to 1888—total number cases admitted 63; white 47; colored 16.
1888 to 1898—total number cases admitted 98; white 71; colored 27.
1878 to 1898—total number cases admitted 161; white 118; colored 43.

These statistics agree fully with those of Matas, drawn from the service of the Charity Hospital in New Orleans, and show that malignant disease, instead of being uncommon in the negro, is as often encountered in him in Southern hospitals as it is in the whites.

Of 1620 deaths from malignant disease reported to

the Louisville health office, 1413 were whites and 207 colored, or about one-eighth of the total number; the normal proportion of colored population to white in Louisville is one to four, which indicates the mortality in the colored population to be 50 per cent. of what it is in the white for cancers in all situations. This I believe to be nearer the truth than the smaller hospital series indicates, as it deals with the entire population of the city, and is moreover nearly in accord with Billings' eleventh census statistics (death rate 53.93 to 100,000 living white inhabitants and 36.65 colored). Further, these represent deaths, and are not open to the objections clinical diagnoses may be.

The discrepancy between the statistics of the hospital and health office are apparent and not real, for, while the hospital shows the colored race to suffer as often as the white, it should be remembered that the improvidence and indigence of this race force them into the city hospital twice as frequently as the more favored whites. The normal hospital proportion of colored to white is just double that shown by the city at large; hence the two reports are in perfect harmony and show the negro to suffer one-half as often from cancers in general as the whites.

Mammary gland.—Far from being uncommon, as many practitioners believe, malignant disease of the mammary gland is as frequent in the black as the white. Personally, I have seen five cases, and know from a colleague that two others were recently in the city hospital. The first case of cancer of the breast I ever saw was in a negress about forty years of age, as black as a crow's wing. She died from recurrence after operation, at the usual time and in the usual way, confirming the clinical diagnosis. In all the others the clinical diagnosis was confirmed by the microscope and by the death of each from recurrence.

There were 889 cases of cancer of the breast reported in the eleventh census; 811 females, 28 males. One occurred under 15 years of age; 163 between 15 and 45; 670 at and over 45. Rate of death to 100,000 inhabitants: females, 8.23; males, 0.29; age 45 to 65, 30.08; 65 and over, 50. Death rate practically same in white (4.27) and colored (4.19).

The records of the Louisville city hospital for the past twenty years show that three-fifths of the cases were whites and two-fifths colored, though the latter represent but one-third of the hospital population. Our health office shows that there were fifty-eight deaths from mammary cancer in the past thirty years. Of this number fifty were white and eight colored.

1868 to 1878—total number cases mammary cancer 14; white 14; colored 0.
1878 to 1888—total number cases mammary cancer 17; white 15; colored 2.
1888 to 1898—total number cases mammary cancer 27; white 21; colored 6.

1868 to 1898 58; white 50; colored 8.

Undoubtedly there have been a larger number of deaths from cancer of the breast, but many have doubtless been entered as "cancer" without giving situation. Small as this series is, it emphasizes the increase of cancer in the negro, especially, and shows that as a race they suffered more frequently than the white during the past ten years.

Cancer of uterus.—The eleventh census shows cancer of the uterus to be far more common in the colored race. There were 1472 cases reported and the death rate was 24.94 in the negro and 14.41, or but little more than half the number in white women. Table shows death rate per 100,000 during census period at all ages:

	All ages.	15 to 45 years.	45 to 65 years.	65 years and over.
Total.	14.93	9.32	54.01	45.91
White	14.41	8.79	52.29	44.36
Native born	10.98	7.51	51.71	43.71
Foreign born. . . .	22.92	11.98	50.79	41.77
Colored	24.94	18.82	94.59	88.36

The death rate is very much higher in the colored race for all ages.

Both the Louisville city hospital and health office statistics show cancer of the uterus to be more common in the black race. From 1878 to 1898 there were 31 cases of cancer of the uterus in the city hospital; of these 23 were white and 8 colored (normal proportion of colored to white in hospital 1 to 3), showing relatively a greater number of cases in the black race:

1878 to 1888—total cases 13; white 12; colored 1.
1888 to 1898—total cases 18; white 11; colored 7.
1878 to 1898—total cases 31; white 23; colored 8.

From 1868 to 1898 there were 272 deaths from cancer of the uterus reported to the health office of Louisville; of this number 216 were white and 56 colored. It shows a per cent. against the negro—our normal population being 1 to 4. Total number deaths from carcinoma uteri in Louisville from:

1868 to 1898—272; white 216, colored 56.
1868 to 1878—39; white 29, colored 10.
1878 to 1888—190; white 74, colored 27.
1888 to 1898—133; white 113, colored 20.

I would be glad to pursue the subject of regional liability in the two races further, but it is impossible at this time; suffice it to say that liable as the mammary gland and uterus of the negro are to malignant disease, certain other regions which one would expect to suffer often do so infrequently. I have never seen cancer of the penis, larynx or tongue in a negro, while rectal cancers are common.

Cancer is rare in Indians, and when it does occur, so I am informed, attacks the breast and uterus. Great smokers as they are, their immunity to cancer of the lips has been remarked upon by a number of army surgeons who have written me. Cancer is rare in all savage races, and is pre-eminently an affection which increases in frequency with a higher state of civilization. Dark-skinned races suffer less than the fair.

Age and sex.—Women are twice as liable to malignant tumors on account of their proneness to disease of the uterus and mammary gland, which embrace one-half of the cases in the female sex. Snow's statistics, gathered from the Cancer Hospital in London, and those of W. Roger Williams recently published, clearly attest woman's double liability. The sexes are upon a parity up to the fifth quinquennium, when the difference between them becomes striking. From 25 to 55 the female is nearly three times as liable to malignant disease, and from 55 to 90 is almost twice as obnoxious. Gusserow, who analyzed 3385 cases of uterine cancer, found only two to have occurred prior to 20; while of Gross' series of 1622 mammary cancers the youngest was 21, a ready explanation of the heavy tribute woman pays to malignant disease during the activity and devolution of her sexual organs.

Age.—Infancy and childhood are practically exempt from epithelial malignant neoplasms (cancer), the youngest case on record being one of cylindroma of the rectum in a girl aged 11 (Stern). Cancer being rare prior to 30, then gets to be more common, is ever thereafter more liable to occur with each suc-

ceeding year, and has been reported by Sutton at 102. Practically all tumors of infancy and early childhood are sarcomata, they being nearly as exempt from benign neoplasms as they are to true cancers. Sarcomas of the eye, kidney, testis and prostate are common in infancy, and may be in many instances congenital.

Duzan analyzed 182 cases of sarcoma in infancy, and found 70 of the eye, 45 of the kidney, 11 of the testicle, 8 of the prostate; while the bones, tongue, abdomen and brain were affected 5 times each; lung and dura mater 4 times; pancreas 3; liver, tonsil and rectum 2 each and stomach 1.

During the second decennium the long bones and maxilla are the usual sites of sarcoma. The long bones still suffer in the third, and in the fourth decennium some of the long bones, as the humerus, and the mammary gland and testicle exhibit their greatest tendency to sarcomatous change. After forty, sarcoma is rather uncommon until sixty, when it again becomes frequent. Like cancer, it is common as a senescent change, but unlike it, shows its greatest destructiveness in infancy and early childhood.

The following tables are by W. Roger Williams, on "The Malignant Tumors of Infancy, Childhood and Youth," the *Lancet*, London, May 1, 1898:

TABLE 1. Showing the deaths due to malignant disease at different age periods:

Periods.		All ages.	Under 1 year.					Total under 5 years.				
Sex.			1-2.	2-3.	3-4.	4-5.						
Males . . .	37,454	8	6	6	6	5					31	
Females . .	10,489	7	6	6	6	6					31	
	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-75	75-85		
Males . . .	18	18	33	50	145	426	1095	1727	1555	591		
Females . .	15	18	25	41	321	1313	2464	2922	2330	910		

Over 85, males, 65, females, 101. Total both sexes, 16,243.

TABLE 2. Showing the number of deaths from malignant disease in early life per million persons living at each age period:

Age periods.	Under 5.	5-10.	10-15.	15-20.	20-25.	All ages.
1861-70.	13	7	7	7	17	384
1871-80.	12	7	7	15	27	464
1881-90.	20	10	11	20	35	539

BENIGN NEOPLASMS.

As a class the mesoblastic benign neoplasms are more common with the negro, he being exceptionally obnoxious to fibroma, lipoma and keloid. Molluscum fibrosum, which I am not disposed to question is more frequent in the negro, is, I am sure, a more common affection in the whites of this and even more Northern latitudes than authorities admit. Many speak of it as an affection almost peculiar to the black races of the tropics, yet I have in my own practice seen three most beautiful instances of this disease in white males, all past forty, within the last four months. I have seen the disease more often in the white than the black. Keloid is also, I take it, more common in the white race than many believe, though it is certainly many times less frequent than in the negro. I have seen a number of typical keloids supervening upon vaccination scars, on the lobule of the ear after the piercing, and upon cicatrices variously situated, in the white race. I agree perfectly with Tiffany that operation does no good in young subjects, and that there is in elderly persons afflicted with keloid a spontaneous tendency to undergo resolution. There is no disproportion between the sexes in their liability to benign tumors.

Age: As has been intimated, the very young are practically exempt from benign neoplasms. The first decennium suffers rarely, and then usually from congenital angiomas and lymphangiomas.

TUBERCULOSIS OF BONES, JOINTS, SEROUS MEMBRANES AND GLANDS.

Pulmonary consumption, which was practically

unknown to the Africans and Indians of North America, several generations ago, has become their deadliest foe, and is fast decimating their ranks. It is more than twice as common in the African as the white, and still more prevalent with the Indian, the latter race suffering directly in proportion as they give up their tepee life and live in poorly ventilated buildings. Therefore, it is not surprising that local tuberculosis of bones, joints, lymphatic glands and serous membranes should show the same proportion of cases in the three races.

I am informed by reliable observers in the Medical Corps of the Army and Indian Departments, that an enormous per cent. of Indian boys and girls develop one or more varieties of surgical tuberculosis when they give up their outdoor life for the schoolroom. Tuberculosis in all of its manifestations has increased with the Mexicans in the same ratio as with the Indians.

Age has a distinct influence, and a majority of such cases occur in the first decennium, about one-fourth in the second, and the remainder after 20. The two sexes are equally obnoxious.

VARICOCELE.

This disease is closely associated with the evolution of sexual apparatus, and is, therefore, largely encountered in adolescence. In my own series of 215 operative cases, and many others not treated, I have never found it to begin before puberty, and rarely after 30. The immense preponderance of cases will be met with in the decennium from 15 to 25. Occurring, as it generally does, in youths who have not begun a sexual life, it is, as a rule, cured by marriage, unless of long standing and accompanied with atrophy of the testicle. While relatively rare in married men, I have operated within the last year upon four such cases in men aged 24, 30, 35 and 57 years respectively, the last being older than any other case in my series; in fact, his was the only instance of the disease I have seen past 40. He was a frail man, doing heavy lifting in his occupation as ship carpenter. The pampiniform plexus was greatly enlarged in this case, and the pain in the cord and back, and the dyspeptic symptoms were so pronounced that he was sent to me from Indiana for operation. He was promptly cured, and I have never seen a quicker and more decided improvement in one's general health, follow any surgical procedure. Negroes are practically immune to varicocele. It has been frequently observed that this race enjoys a relative immunity to varices in general. Varicose veins of the legs and hemorrhoids are noticeably less common in the negro, still a number of such cases have come under my observation. I have for fifteen years been looking for a varicocele in the negro, and my chief of clinic has been instructed to examine all males coming to our clinic, and has done so with negative result. In an analysis of more than 600 cases treated and operated upon by Louisville surgeons, not a single case has been seen in the negro, and only one encountered in a mulatto. I have taken great pains to see each of the clinical teachers and their assistants, and the records of the four large dispensary services of Louisville do not furnish a single case of varicocele, notwithstanding the fact that nine-tenths of our patients are negroes. Correspondence with surgeons and clinical teachers of other cities has almost invariably been followed by the statement, "Have not seen varicocele in negroes."

Prof. J. William White of Philadelphia, recently told me that in several hundred operations he had done for varicocele, none were negroes. Horwitz of Philadelphia, in 278 cases, has seen but a single instance, and that in a mulatto. Kirby of Philadelphia has not seen it in the negro. Tiffany of Baltimore, has had but one case and that in a bright mulatto. Prof. John P. Bryson of St. Louis writes me as follows: "We have failed to elicit, either from private practice or from clinics of the St. Louis Medical College or the St. Louis Hospital, a single case of prostatic hypertrophy or of varicocele occurring in the full-blooded negro. While, as you say, the negro population of St. Louis is not large, it seems unlikely that these conditions should exist to any but the rarest degree without some of them appearing at one or other of the two above named clinics. I have had abundant evidence of the prevalence of tubercular affections of both prostate and testis in the full black, but of hypertrophy of the former or of varicocele, I have no record or memory. The question is an interesting one, and may shed, on investigation, some light upon the obscure subject of the etiology."

Professor Hunter McGuire of Richmond, Virginia, writes me as follows: "I have never seen a case of varicocele in the full-blooded negro. I do not remember to have seen one in a mulatto."

Dr. F. C. Leber of Louisville writes: "Varicocele is rare in the negro. I can speak decidedly in regard to this, since in the four years during which I was President of the United States Board of Examiners of Pensioners in this city, I can not recall a single instance of this disease, while the cases in which pensions were granted to white veterans for this affection were quite numerous, as the records show."

Captain and Assistant Surgeon William L. Kneeder, United States Army, writes: "I have never seen a well-marked case in the negro. I served three years with colored regiments and examined many negro recruits."

Lydston of Chicago has seen "one case of moderate varicocele in a mulatto."

Bull, Wyeth and Coley of New York tell me that they have never seen varicocele in the negro.

Therefore, I take it, I am justified in assuming that the full-blooded negro is practically immune, and that mulattoes have varicocele most rarely. No one, so far as I know, has investigated this subject before, but it does seem to me that the evidence here presented is weighty. There are, I think, good reasons anatomically and physiologically for this marked immunity. Anatomically the testicles do not hang so low as in the white; are not so large, though the penis is larger, and the scrotum is close fitting and less lax than in the white man. In the negro the condition is much like the scrotum of the dog. Physiologically the negro begins his sexual life at puberty, and does not know what it is to be continent any time thereafter. Dissections which I have made and caused to be done have failed to show any difference in the veins of the negro from the white.

The usual causes of varicocele given in text-books and other literature fail to explain this striking immunity of the negro. I am satisfied that the better mechanical support given his veins, together with his lascivious life, furnish the best explanation. I also believe that the reason for this disease always affecting the left pampiniform plexus of veins is mostly due to the fact that the left testicle is larger, heavier and

more dependent than the right. This in conjunction with the fact that the spermatic veins empty at a right angle into the left renal instead of at an acute angle into the vena cava as upon the right side, and the absence of a valve upon the left side, which was shown by Brinton to exist upon the right, offer a perfectly satisfactory reason as to the leftsidedness of this disease, entailing as it must a sluggishness of the venous circulation upon this side. I do not believe that it ever occurs upon the right side unless preceded by a larger varicosity upon the left. In my 215 operations for varicocele I have encountered it as a bilateral condition in two cases, and in each the trouble was primary and much greater upon the left side. In only one of these cases did I operate upon both sides. In the second case the varix upon the right side promptly subsided after operating upon the left.

Several army surgeons to whom I have written making inquiry if varicocele was common among the North American Indians, have replied always in the negative. It must be, from the information I have at hand, at least rare, if it occurs at all, with the Crow, Arapahoe, Cheyenne, Sioux, Apache and Comanche Indians.

ENLARGED PROSTATE.

My own experience leads me to believe that enlargement of the prostate as a senescent change is common enough in the white after 50, but rarely seen in the negro. Every surgeon to whom I have written expresses the same opinion, many stating that they have never seen it in the full black. Prof. Hunter McGuire writes me as follows: "As much as I have had to do with this subject and as much as I have written about it, I never saw a case of chronic hypertrophy of the prostate gland in a pure negro; I see it very often in the mulatto and mixed breeds." Dr. F. C. Leber, who was president of the Louisville Board of Examiners of Pensioners, says that in his four years' service no case of enlarged prostate presented for examination in the negro. He has not seen it in private or hospital practice in thirty-seven years' experience. Prof. John P. Bryson of St. Louis writes that while he often sees tuberculosis of the prostate and testicle in the negro, he has never seen a single case of prostatic hypertrophy, nor do the records of the college and hospitals of St. Louis with which he is connected show a single instance of this affection. Profs. F. W. Samuel and H. H. Grant of Louisville, both surgical teachers and busy men, have never seen enlarged prostate in the negro, notwithstanding the fact that our negro population is one to four and our clinics are made up almost entirely from the negro population. Other Louisville surgeons, as Bloom, Roberts, Vance, Cartledge, Orendorf and Blue, have all expressed the opinion to me and have written that enlarged prostate in the negro is very rarely encountered. I have seen one case in a negro past 20 in twenty years' experience. My distinguished friend, Prof. P. S. Conner of Cincinnati, writes me that "enlarged prostate is infrequently found in blacks."

The records of the Louisville City Hospital for the past ten years have been most carefully examined, and there has not been a single case in the negro. I therefore agree with Matas that chronic enlargement of the prostate gland is a rare disease in hospital practice in Louisville, as it is in New Orleans, but can not

agree with him that it is relatively nearly twice as common in the black race. Age has a most important bearing upon enlarged prostate, and it is practically never seen before middle life. It is said by most authors that about one-third of all males past middle life are subject to some enlargement of the prostate; in only about one-tenth of these, however, is the enlargement of such a nature as to be of pathologic import. I am sure that I have never seen enlarged prostate, not clearly due to malignant disease, prior to 50, and few cases under 60. White and Martin state that prostatic enlargement occurs as a rule in men who have passed the age of 55, and that "on the basis of extensive tabulations it is, however, apparent that enlargement of the prostate begins only exceptionally under the age of 50, or after that of 70."

Since writing the above a letter has been received from Prof. H. H. Mudd saying that his case of supposed hypertrophy of the prostate in a negro aged 27, proved to be malignant. This case has been often quoted, and I am glad to have an authentic statement from Dr. Mudd. In his letter he says: "I have never seen a pure case of hypertrophy of the prostate in the negro. I reported two cases at one time; one a pure case of hypertrophy in a white child, aged 13 months, and another, a full-blooded negro with very large prostate which proved to be malignant. The prostate of this case was a hard, firm, malignant growth of the size of the two fists. I will look up my reports and see if I can give you a description of the pathologic conditions found by examination under the microscope."

A letter of more recent date says that the enlargement of prostate filled the pelvis and was found to be alveolar sarcoma. This disposes of a hitherto puzzling and much quoted case.

GALL-STONES.

That gall-stones practically never occur during the first decade of life, and but rarely in the second, I am now assured after an extensive search of the literature of the subject and personal correspondence with a great many surgeons who have been kind enough to give me reports of the ages of all cases operated upon. It may be said that they are infrequently seen under 30. After 30 cholelithiasis becomes progressively more common with advancing years. In more than 9,000 autopsies gall-stones were found in one case in every thirty by Naunyn; in persons past 60, one out of every six is affected. The disease is unmistakably more common in women than in men, the proportion being usually given as five to two. In my opinion the disproportion is even greater than this, as is shown by a careful analysis of more than 100 cases operated upon by Louisville surgeons. Of 102 cases where sex was stated 18 only were males. The wearing of corsets, etc., has been held to explain the greater prevalence in females, but it would seem to me that a better explanation is given by their sedentary habits and greater tendency to stomach, liver and bowel troubles.

That the colored race is far less frequently affected than the white seems certain. Prof. Tiffany writes me that while he has done many operations for gall-stones in the white, he has never seen a case in the negro. Prof. Hunter McGuire writes me that he has never seen a case in the negro. Dr. W. E. B. Davis of Birmingham has met with a case in a mulatto, but has seen none in the full-blood. In 106 cases oper-

ated upon by Louisville surgeons but one was in the negro. I have at great pains seen every surgeon in this city and gone over their series carefully with them, and am sure that these statistics are absolutely trustworthy. I have done more, and have gone to Dr. Solomon, Curator of the City Hospital, who has kept a record of every postmortem examination he has made since he has been curator (two years) and in not a single instance have stones been found in the gall-bladder of a negro. It, of course, was examined in every postmortem. He found them frequently in whites.

That the negro should suffer less frequently is, I think, explained by their more active life, better teeth and stronger digestion, coupled with the fact that they do not indulge in the highly seasoned and bilious-making food of the whites; they are also less liable to malaria and other conditions dependent upon, or associated with, a torpid liver.

ANEURYSM.

According to the Eleventh Census Report aneurysm is far more common (3 to 1) in the colored than in the white race. The records of the health office in Louisville agree fully with Billings' statistics, showing that in a population of one to four there were nearly as many deaths in negroes as in whites (14 colored and 18 whites) in the last decennial period.

Of patients treated at the Louisville City Hospital for ten years past, there were slightly more than three times as many negroes as whites, although the proportion of white to colored patients in this institution has been nearly three to one. Sex also has a most marked influence in the etiology of aneurysm. Crisp, in an analysis of 551 cases, found it to be seven times more common in men. Souchon's series of 98 cases shows 76 males and 22 females. An analysis of the cases at the Louisville City Hospital, and those reported to the health office for the past ten years, shows more than three times as many cases in men. The disproportion in the two sexes is, I think, readily explained by the greater tendency of the male sex to arterial degenerations on the one hand, and their occupation and habits on the other. Age has a most direct bearing, as aneurysm rarely occurs before 30. In the series analyzed by me none occurred under 25; there were but three under 30, aged 25, 28 and 28 respectively. The greatest number of cases will be found between 35 and 55. The disease is rare after 60. The following table gives a record of all cases reported to the Health Department of the city of Louisville during the past ten years:

Age	White		Sex not	Colored.		Sex not	Totals.
	M.	F.	stated.	M.	F.	stated.	
1 to 10							
10 to 20							
20 to 30	2			1	1	1	4
30 to 40	3		2	1	1		7
40 to 50	3		1	3	2	1	10
50 to 60	3	2			1	1	7
60 to 70		2		4		1	4
70 to 80							
Totals	11	4	3	5	5	4	32

Males. White, 11; colored, 5; total 16. Females. White, 4; colored, 5; total, 9. Sex not stated. White, 3; colored, 4; total, 7.

Aneurysm is apparently far more common in some races than in others, being very frequent and seemingly increasing in England, while it is one of the rarest affections in China, due, it is said, to the non-stimulating rice diet, temperate habits, and phlegmatic temperament of the Chinese. Prof. Hunter McGuire, of Richmond, Va., writes me as follows:

"Aneurysm is much more common in the negro than in the white in my experience." Prof. Tiffany of Baltimore writes of the frequency with which aneurysm occurs in the black race. Nearly all surgeons to whom I have written and from whom I have received replies have remarked upon the greater liability of the black race to aneurysms. I regret to say that few have given any reports of cases, and that these statements are merely impressions gained from a large experience but not substantiated by statistical detail. It is certainly my own conviction that aneurysm is relatively far more common in the negro, and therefore, can not agree with Matas' statement that aneurysms are somewhat less common in the African, a fact he thinks due to their comparative immunity to gout, rheumatism and alcoholism.

TETANUS.

While tetanus is co-extensive with civilization, affecting every race and clime, it is more common in subjects living in hot climates and possessed of dark skins. Negroes, Hindoos, South Sea Islanders, Italians, Spanish and French are less resistant to the germ of *Nicolaier*. In this country the negro is unquestionably more obnoxious, the infant mortality being heaviest. Appreciating the indifference with which negroes treat minor injuries, and their proverbial uncleanness, we can well understand their greater liability to infection.

The mortality among colored infants is particularly high in comparison to the white, which is explained by racial predisposition on the one hand, perhaps, and by the greater chance for infection through the cord of the newborn, cut as it is with dirty scissors, handled with dirtier hands and wrapped in unclean rags. A large per cent. of colored infants die from trismus neonatorum on Southern plantations, death usually occurring within a fortnight after birth. In the Island of Jamaica and other more Southern countries, the death rate is at times frightful, being from one-quarter to one-half of all infants born; yet the whites here do not suffer to any degree.

According to Billings' recent Census Report, there were 2019 deaths in the census year: 1238 males and 781 females. In 1880 the death rate was greater. Persons from 5 to 15 years show the highest death rate (1.74); those from 15 to 45, 1.04; and over 45, 1.42. The death rate in boys was nearly five times as heavy as in girls. There were sixty deaths in Chicago during the month of July, 1881, due to toy pistol accidents. This, I think, explains the greater prevalence in males; they are simply more exposed to accidents of all kinds and are not more liable, *per se*, to infection.

Tetanus is, or has been in past wars, frequently encountered in military surgery. English soldiers in Spain suffered from tetanus in proportion to one case in eighty wounds; and in the East Indies, in 1872, twice as often. During the civil war our troops were more fortunate. A letter just received from Surgeon Major J. C. Merrill, United States Army, and librarian of the Surgeon-General's Office, is as follows: "I would state that out of 246,712 injuries by weapons of war, 505 (0.20 per cent., or a little over two in a thousand) were followed by tetanus. I may add that over one-half of these cases occurred after injuries to the lower extremities, a fact that has been noted by several authors in other statistics. Your second question, as to the relative frequency of tetanus or erysip-

las in colored and white troops, and also in North American Indians, can not, I think, be answered without an amount of search that would require weeks to make it valuable. Isolated cases are reported here and there, but I know of no statistics of sufficient numbers to throw any light on this matter."

The Italians, Spanish and French have suffered more in their wars than soldiers of more Northern countries with fairer skins. Sudden variations in temperature and the depressing effects of defeat, have always increased the number of cases in military surgery.

I am told by Hebrew surgeons that trismus neonatorum is more common than it should be in Jewish infants. It can well be explained, if true, by the manner of performing the ritual circumcision. The Mohel is necessarily surgically unclean and careless in performing the operation, and infection should be easier than if this function were transferred to surgical hands. I am reliably informed by one of my Hebrew medical friends of Louisville that a well-known Mohel of that city is himself infected in a serious way, and a very unfit person to officiate as he does. I am further told by Jews who were born in Russia and other countries, that an affection, which I take it from their description, must have been trismus, is quite common among Jewish infants there. The Jews are a shrewd, wideawake, sensible people, quick to see their own interests, and it is reasonable to assume that time will soon bring about a change of sentiment in this rite.

Health office.—Deaths reported due to tetanus from 1888 to 1898:

White 5, colored 3, total, 8 cases age not given; white 39, colored 16, total 55 cases over one month; white 126, colored 29, total 155 cases under one month. Total, 218 cases. Total white, 170. Total colored, 48.

VARICOSE VEINS.

Varices of the limbs are but seldom encountered in negroes. Of 23 cases of varicose veins of the legs, without ulcer, there was but a single case in a negro, a male aged 44. Of 29 varicose ulcers there was only one case in a negro, a man aged 53. Of the 45 cases there were 13 females and 32 males.

Varicose veins of the limbs are rare before 30, there being but two in the series, aged 27 and 28 respectively. Between 30 and 40 there were 4 cases, between 40 and 50 there were 4 cases, between 50 and 60 there were 6 cases, between 60 and 70 there were 7 cases, between 70 and 80 there were 2 cases. Varicose veins of the limbs are uncommon with Indians, Mexicans and Chinese.

ERYSIPELAS.

The total number of deaths due to erysipelas, in the United States Census Report just issued, was 2663. The death rate per 100,000 inhabitants was as follows: Under 5 years 31.34; 5 to 15 years 0.81; 15 to 45 years 2.80; 45 to 65 years 8.88; 65 and over 38.55. Very few cases occurred in colored persons, so few as to be of no value. A careful examination of the records of our city hospital and the Louisville Health Office shows that the disease is not so rare in the negro as many suppose. Of 79 deaths due to erysipelas, reported in the past ten years to the health department of this city, 17 were colored, which is about the normal proportion, our population being one to four.

Those who are unaccustomed to seeing erysipelas

in the negro are apt to overlook it on account of the color of his skin. Sex would seem to have but little effect. The two extremes of life suffer by far most frequently, young adults and middle-aged persons having it but rarely. Erysipelas of the newborn has not been a frequent affection in Louisville, judging from records of deaths reported to the health department. In ten years there have been 11 cases dying within the first month of life; of these 10 were white.

STONE IN THE BLADDER.

Dr. George Ben Johnston of Richmond, Va., has made a careful investigation of 1068 cases of urinary calculi occurring in twelve Southern States, and finds that the negro is less immune to this affection than has been hitherto believed by many surgeons. It occurs once in every 11,732 whites, and in the black race once in 55,305. It is, then, nearly five times (4.72) more frequent in the Caucasian. Sex was specified in 708 cases, there being 691 in males and 97 in females; more than seven times as frequent in the male sex. The ages of his cases in this large and interesting series were not given, I regret to say. Gross analyzed 6042 cases of urinary calculi with reference to age, and found that:

2334 occurred from 1st to 10th year.
1079 occurred from 10th to 20th year.
513 occurred from 20th to 30th year.
353 occurred from 30th to 40th year.
422 occurred from 40th to 50th year.
536 occurred from 50th to 60th year.
587 occurred from 60th to 70th year.
201 occurred from 70th to 80th year.
17 occurred from 80th to 90th year.

It will be seen that more than one-half of all cases occurred within the first two decades of life, and that the first furnishes more than double as many cases as the second, the latter more than double the number in the third decade. The ratio is then pretty well maintained until the sixth decade, when an increase is noted; this increase to be still further augmented in the seventh decade. When it is remembered that there are relatively fewer persons living in the sixth and seventh decades, it will at once be seen that the two extremes of life, the first and seventh decades respectively, are most obnoxious to urinary calculi. Stone in the bladder occurs everywhere, affecting every race, but it is found in some countries more frequently than in others. In North America it is found most frequently in Kentucky, Tennessee, Ohio, Missouri, North and South Carolina, Virginia and Georgia. New England is relatively exempt, as are also Mississippi, Alabama, Arkansas, Louisiana and a few other Southern States. Stone is common in France, Austria, Hungary and Russia; seldom seen in Spain and Switzerland. It is also frequent in England, though less so in Ireland. It is very common in India. In China gravel and calculus are, according to Gudgeon of Pekin, among the rarest of affections. Stones are common enough at Canton, but of infrequent occurrence at other points. It has been supposed to be due to the fact that the inhabitants here live largely upon fish, but this can hardly be, as Gudgeon states that the diet, water and habits are the same here as at other Chinese centers.

Opium eating is supposed to lessen the liability of the Chinese, as a race, to stone. Certainly it is not the drinking of limestone water, as river water is universally drunk and very generally boiled before drinking. Little cold water is drunk in China. A number of my surgical friends in the Medical Corps of the

United States Army assure me that stones in the bladder and kidney are rare among the North American Indians, and the reported cases will generally be found to have occurred as a result of traumatism, a nucleus in the bladder inviting the deposition of the solid constituents of the urine around it. I have reports which justify me in thinking that vesical calculi are more common with Mexicans, one operator in the small town of Santa Fé reporting five operative cases.

STONE IN THE KIDNEY.

Practically all that has been said of vesical calculus pertains with equal force to the renal variety. The two extremes of life are most obnoxious; males also suffer about twice as often as females, some placing it as much as three times as frequently. Some excellent authorities, however, as Duplay, Reclus and others, think the two sexes equally affected. It is very certain that the disproportion which exists between the two sexes in vesical calculus does not exist here, and does occur in the former disease for obvious anatomic reasons. The short, capacious urethra of the female easily allows gravel to pass, which in the male must remain in the bladder and act as nuclei for future stones. No cases have been reported to me as occurring in the negro.

OVARIAN GROWTHS.

Ovarian tumors, cystic and solid, occur at all ages and in every race so far as I know. The more usual form of growth is cystic in character, simple or dermoid. Both varieties may be congenital, frequently are, and only await the stimulation which puberty brings to awaken them into renewed life. Therefore, while the records abound with instances of operations done upon simple and dermoid cysts in children by operators all over the world, we may say that prior to puberty ovarian growths are relatively rare. An infant four months old was successfully operated upon by D'Arcy Powers at the Victoria Hospital for an ovarian cyst containing fifty-nine ounces of fluid, reported only a few weeks ago. Hoffman reports an unsuccessful case at three months, the tumor containing six to eight pints of fluid and the solid portion weighing $2\frac{1}{2}$ pounds, in all 10 pounds. Busch operated unsuccessfully upon an ovarian cyst in a child 24 months old. de Santa Anna removed a dermoid cyst in a child 1 year old, and Roehmer one from a child 20 months old, and Schwartz one from a child 4 years old. Mears, Barker and Rein have operated in cases of children under 7 years of age; while Thornton, Lucas, Hamaker, Cupples and Chenoweth have operated in children from 7 to $7\frac{1}{2}$ years. Sir Spencer Wells and many others report operations in children under 10 years of age.

As to the other extreme of life, the same may be said, the octogenarian being not immune. A great number of cases have been reported in women past 70, and a reasonable number 80 and beyond. Cartledge of Louisville, recently operated successfully upon a case past 81. Hoffman reports a case at 82. But, while it is true that ovarian cysts may and do present themselves at any age, it is also true that they are most likely to develop during the sexual life of the host. Puberty stimulates not a few to rapid growth, especially dermoids; therefore, it is not unusual to find such growths under 20. They, and all other ovarian tumors, are more common, however, during the next three decades of life.

Much has been written about the immunity of the negro to cystic diseases of the ovary, yet literature teems with instances of the affection in the colored race. It is unquestionably less common in the negro, but the difference in liability of the two races which is supposed to exist by many surgeons is not supported by careful statistical data. A great many ovarian cysts in the negro, full-blooded as well as mulattoes, have been reported to me by various surgeons of the South. The records of the Health Office of the city of Louisville show that there have been nearly one-third as many deaths from ovarian tumors in the colored race as in the white during the past ten years. This would indicate them to be even more common than in the white, as the normal proportion of colored to white population is one to four; yet this is not the case, I fancy, as the discrepancy is easily explained, I think, in several ways. In the first place the colored race is less resistant to surgery of all kinds, which fact seems clearly established by Matas, from the enormous experience of the Charity Hospital of New Orleans. In the second place negroes are oftentimes operated upon by less skilled abdominal surgeons and under environments less advantageous than whites enjoy.

I am, to conclude, satisfied that the supposed immunity which the negro is thought by many to enjoy does not exist, except to a limited degree, if at all; for if they were immune at one time, the immunity hitherto enjoyed, has, like unto that from malaria and yellow fever, almost wholly disappeared. The size of ovarian growths varies from a walnut to a mass aggregating a weight of 245 pounds, the largest tumor on record, removed by Cartledge of Louisville, within the year. A female laparotomist of Japan removed one weighing considerably less. Keen of Philadelphia, removed a very large tumor in a girl 15 years of age, weighing 111 pounds, the child weighing, after removal, 68 pounds.

Malignant disease (usually sarcoma) of the ovary may occur. It is four times as common before the age of 15 as afterward; 25 per cent. die from any operative interference, and nearly all within a year from recurrence. Convalescence is also tedious in those who survive operation.

CONGENITAL DEFORMITIES.

Harelip, cleft palate, clubfoot, spina bifida and all congenital deformities are certainly less frequent in the negro, judging from the experience of Louisville surgeons and other practitioners in Southern cities to whom I have written. But a single case of harelip and cleft palate, both in the same individual, has been operated upon in Louisville, so far as I can learn from personal interviews with its surgeons and examination of the records of the city hospital and college clinics, for the past ten years. Clubfoot and spina bifida in the negro have never been encountered in my practice, nor so far as I can learn in the practice of other Louisville surgeons. Dr. Vance is positive that he never saw a case.

Congenital deformities of all kinds are also reported to be most rare with Indians. The only deformity reported by any of the many army surgeons to whom I have written was one case of clubfoot and a double harelip, both in Sioux children. The clubfoot was in a boy and the sex of the harelip case was not given by the reporter, Dr. William L. Kneeder, captain and assistant-surgeon, United States Army. Other army

surgeons who have answered my inquiries have all stated that they have never met with these deformities in Indians; most of them, however, stating that they may not be so rare as their observations would indicate, for it is the custom of the Indians to put deformed children to death soon after birth. The Jews, I am informed, suffer less than others from congenital deformities. The Mexicans as a race suffer more frequently than Indians from all congenital deformities, and a number of cases of harelip, club-foot, supernumerary digits, etc., have been reported to me. One family in the practice of Dr. J. M. Diaz of Santa Fé, N. M., is remarkable for each of six children having six fingers and as many toes upon each hand and foot.

APPENDICITIS.

That appendicitis is relatively a rare disease with negroes is a fact substantiated by all Louisville surgeons and others from whom I have received answers to my questions. In an analysis of 250 cases operated upon by Louisville surgeons, but 5 cases have been reported in negroes. This would indicate a striking immunity, as it shows the disease to be only one-tenth as common in the black race.

Sex.—Nearly all writers on this subject have remarked upon and tried to explain the greater frequency of appendicitis in the female. That it is more common in men none will deny. Just what the difference in liability is, it is not easy to say. Fowler's statistics indicate it to be rather more than four times as common—142 men, 35 women. In 92 cases analyzed by myself there were 58 males and 34 females.

Age.—The influence of age is not less marked than that of sex and race. The disease is common between 15 and 35. Though Hold, Villard and others report cases under 5 years of age, but few are of record, and we are justified in saying that the first quinquennium of life enjoys a practical exemption from this affection. It is rare in the second quinquennium, more common in the third, liability further increased in the fourth, and reaching the maximum in the fifth quinquennial period, then declining slowly in the sixth, seventh and eighth to become thereafter a rare disease. The average age in 92 cases was 23.13 years.

I have analyzed 92 cases with reference to age and sex: Of these there were 58 males and 34 females. The ages were as follows:

	Cases.
Under 5 years ($3\frac{3}{4}$ years)	1
5 to 10 "	9
10 to 15 "	11
15 to 20 "	18
20 to 25 "	19
25 to 30 "	16
30 to 35 "	4
35 to 40 "	4
40 to 45 "	5
45 to 50 "	2
50 to 55 " (51, 52 and 53)	3
Total	92
Average age	23.12 years.

In Fowler's 169 cases (*Annals of Surgery*, May, 1894) 142 were males and 35 females. The age of the youngest was 2.5 years, the oldest 68 years. In the youngest case the disease was tubercular in character. This was the only case occurring under 5 years of age.

	Cases.
Between 5 and 10 years	8
" 10 " 15 "	21
" 15 " 20 "	29

Between 20 and 25 years	43
" 25 " 30 "	23
" 30 " 40 "	28
Over 40 years	16

Experience of Louisville surgeons:

James M. Holloway—"I recall but one case in the negro." Ap Morgan Vance—"Forty-four cases, one negro; average age 24." A. Morgan Cartledge—"I have operated but once on the negro in more than one hundred cases; first, second, third decade." J. Garland Sherrill—"Three cases; none in negro; aged 55, 20 and 38." H. Horace Grant—"About 5 per cent. in negro." W. O. Roberts—"About twenty cases; one in negro." T. B. Greenley, Meadow Lawn, Ky.—"Have never seen case in negro." J. R. Buist, Nashville, Tenn.—"Common from 5 to 40; rare in negroes." Hunter Maguire, Richmond, Va.—"I see very little difference in appendicitis in the two races; probably it is a little more common in my experience in the white." L. McLane Tiffany, Baltimore, Md.—"I have operated upon two negroes for appendicitis; one a male child, one a young male adult." In more than fifty operative cases I have seen appendicitis but once in the negro.

RECTAL DISEASES.

That all periods of life do not suffer from the several diseases of the rectum is apparent to every observant practitioner. Children frequently have prolapsus ani and polypi, but rarely other rectal affections. Elderly persons also enjoy a relative immunity to rectal disorders, as they suffer infrequently from the more common troubles, hemorrhoids and fistula. Cancer, to be sure, is more frequent with them, but it is, comparatively speaking, a rare disease. Middle life is the time when piles, ischiorectal abscesses, fistulae and fissures are most prone to occur. They are all frequent. An analysis of 70 cases of hemorrhoids shows only three patients under 20 to have suffered—at the ages of 14, 18 and 19 years respectively.

Suffered in the third decennium	14
Suffered in the fourth decennium	15
Suffered in the fifth decennium	19
Suffered in the sixth decennium	19
Suffered in the seventh decennium	3

Total 70

Sex seems to have an influence, as less than one-third were females (females 23, males 47).

Race has a more marked influence, there having been 60 whites to ten colored. As these were hospital cases where the proportion of colored to white patients was 1 to 3, piles seem to be more than twice as common in the white.

Hemorrhoids are said by army surgeons and others to be rare among the North American Indians. The celebrated authority, Van Buren, who spent some years among them, stated that he never saw a case of piles in an Indian. Dr. F. A. Winter, assistant-surgeon, United States Army, informs me that hemorrhoids are reported to be common with the Mexicans, and their liability is supposed to be due to the free use of mescal. Piles are common with the Mexicans of New Mexico where pulque is not used as a beverage, and is supposed, by nearly all of the practitioners of the Territory, to be due to the free eating of Cayenne pepper.

I am told by careful observers doing much practice among the Jews that they are, as a race, liable to rectal affections. Dr. Gerster of New York, for many years surgeon to Mt. Sinai Hospital, where the

patients are mostly Hebrews, gave it as his opinion in a paper read before the American Surgical Association, that this race frequently suffered from rectal affections. He expressed the same opinion to me personally.

Fistula in ano is just as common, or nearly so, in the colored race as in the white. An analysis of 43 hospital cases shows 33 in whites, 10 in negroes; normal proportion of colored to white, nearly 1 to 3. The liability of the negro to tuberculosis explains his being more frequently affected with fistula than piles. Twenty-seven of the series were males and 16 females.

Age.—The first decade, as in piles, furnishes no cases; the second but 5 cases, aged 13, 16, 17, 18 and 19 respectively.

	Cases.
The third decennium furnishes	12
The fourth decennium furnishes	10
The fifth decennium furnishes	4
The sixth decennium furnishes	11
The seventh decennium furnishes	2

Fistula is undoubtedly more fatal in the colored race. Of the fatal cases reported to the Louisville Health Office during the past ten years, there were nearly twice as many deaths in negroes, although the normal proportion of colored to white population is only 1 to 4. This would indicate fistula in the negro to be nearly eight times as fatal as in the white. The excessive mortality in the colored race can be explained by their greater tendency to tuberculosis, sepsis and syphilis.

ACUTE INTESTINAL OBSTRUCTION.

Omitting congenital malformations as a cause of obstruction, we have first, invagination or intussusception; second, impaction of foreign bodies, notably gall-stones; third, volvulus or twisting of the bowel upon its axis, said to be due to elongation of the mesenteric attachment of the gut; and fourth, internal strangulation either due to an inflammatory band, a Meckel's diverticulum, or a protrusion of the gut through some internal opening. I have only chosen to consider acute obstruction, as it would seem to have a more direct bearing upon the questions of age, sex and race.

Intussusception.—Intussusception causes at least one-third of all cases of acute intestinal obstruction. According to W. Brinton, who analyzed 12,000 post-mortem examinations, intussusception causes about 43 per cent. of all cases. Leichtenstern and Fitz place the figures at 38 per cent., others place them as low as 30. Intussusception is *pre-eminently* an affection of *infancy and early childhood*. L. Emmett Holt has collected 385 cases of intussusception in young children; 141 were under six months old, 89 between six and twelve months, 32 between the first and second year, 96 between two and ten years. It will be seen that considerably more than one-half of these cases occurred within the first year. It was encountered more frequently in males than in females—174 against 94. In adults intussusception is said to be more common in women than in men (Park's "System of Surgery"). At least one-half of all cases of intussusception take place at the ileo-cecal junction. Of the remaining cases twice as many will occur in the small intestine as in the colon.

Impaction of foreign bodies.—Foreign bodies, hardened feces, and especially gall-stones, may occasionally cause intestinal obstruction. From statistics, which I have carefully examined, it would seem that

this will explain about one case in fifteen of intestinal obstruction. I have seen two cases caused by impaction of enormous gall-stones, both in elderly subjects (white) and in females. Occasionally an instance will be met with in a child who has swallowed foreign bodies. Cases due to fecal impaction are usually in elderly subjects, a decided preponderance being females.

Volvulus.—Intestinal obstruction due to volvulus is comparatively rare. It nearly always occurs after middle life, frequently in elderly people, and is three to four times as common in men as in women. Elongation of the mesentery, which is supposed to act as a cause, may be congenital, but is usually exaggerated late in life as a result of prolonged traction, therefore explaining the relative frequency of this affection in elderly subjects, just as hernia is accounted for in the same way.

Internal strangulation.—This variety of intestinal obstruction is the most frequent of all. It may be caused by a Meckel's diverticulum, inflammatory bands, retroperitoneal herniæ, prolapse of the intestine into an abnormal pouch, or be a form of hernia. An intussusception is closely identified with the first decennial period of life, and volvulus with elderly subjects, this variety is associated with those between the two extremes of life. This is, as we might expect, on account of occupation, exposure and the diseases to which we are liable during the active period of existence. In men it may follow appendicitis caused by a band constricting the bowel; in women it not infrequently follows pelvic inflammation.

Race.—Of 45 fatal cases of intestinal obstruction reported to the health office for the past ten years, 40 were white and 5 colored; 26 males, 19 females. This would indicate a mortality in the white race exactly double what it is in the black. (Normal population one to four).

White, male 23, female 17; color not stated 10; colored, male 3, female 2; sex not stated 1; total 56.

CHAIRMAN'S ADDRESS.

[ABSTRACT.]

Presented to the Section on Obstetrics and Diseases of Women at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

BY JOSEPH PRICE, M.D.

PHILADELPHIA, PA.

In the early history of gynecology the real pioneers had not only the scientific knowledge to attain, but principles to practically apply, means and methods to adopt without the aid of precedents or the counsel of fellow practitioners. It has always been difficult to perfect and establish a procedure.

McDowell operated with a mob at his door. Nineteen and ten years before McDowell's operation, William Bainham did two successful operations for ectopic pregnancy. Doubtless the success of Bainham's operation greatly influenced McDowell and was inspiration in his own heroic and successful work. Yet notwithstanding this success there was a suspension of the operation for a quarter of a century. Not again was the operation resorted to until 1843. Then by John Light Atlee of Lancaster, Pa., and John Clay of Manchester, England. To the extent to which these pioneers carried their work, we have in our own work, without material change, followed their methods,