SOME NOTES IN REGARD TO THE SURGERY OF SOUTH CHINA[1]

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THE following statements concerning the incidence of surgical diseases and conditions are based upon an analysis of 64,938 operative procedures performed upon inpatients in the Canton Hospital during a long term of years and the other data from the records of 13,761 operations performed upon inpatients in the same institution during the past 10 years. Brief notes in regard to a few interesting cases are also added.

The following was the order of frequency in the incidence of disease as affecting the different systems: ophthalmological, 18,734 or 26.7 per cent of the cases; infections, 13,616 or 19.4 per cent; genito-urinary, 11,190 or 16 per cent; tumors, 5,184 or 7.4 per cent; wounds and injuries, 4,743 or 6.7 per cent; bones and joints, 4,526 or 6.4 per cent; digestive, 3,655 or 5.5 per cent; upper tract, 926 or 1.3 per cent; abdomen and wall, 292 or 0.4 per cent; rectum and anus, 2,527 or 3.6 per cent; congenital abnormalities, 2,410 or 3.4 per cent; otological, 2,063 or 2.9 per cent; obstetrical, 1,599 or 2.3 per cent; gynecological, 737 or 0.7 per cent; lymphatic, 464 or 0.6 per cent; circulatory, 234 or 0.3 per cent; rhinological and laryngological, 155 or 0.2 per cent; respiratory, 48 or 0.07 per cent; ductless glands, 11 or 0.01 per cent. During the past 8 years the hospital work has been specialized.

Congenital abnormalities. Phimosis, 1,123 cases; hare-lip, 856; imperforate anus, 230; polydactylism 46; nævi, 34; cleft palate, 14; hypospadias and epispadias, 14; vaginal atresia, 12; webbed fingers, 10; branchial cysts, 7; cephalomengocele, 3; rectovaginal cloaca, 5; patent urachus, 3; teratomata, 3. Patients with hare-lip usually come to the hospital just prior to marriage. The average age for the males with this condition was 21, females 14. A male child, 3 years of age, presented a channel from the bowel, along the inferior surface of the penis, and parallel with the urethra, which gave exit to the fæces at the end of the penis just below the meatus urinarius. A boy with imperforate anus had a canal along the scrotum to the middle. A lower incisor was extracted from a baby 7 days old. One boy was operated upon at the same time for hare-lip, supernumerary thumb, and ear. In one case the radius of both forearms and the thumbs of both hands were wanting. A patient who was almost blind lacked all fingers except the thumbs and little fingers. There was a corresponding deficiency in the feet. The metacarpals and metatarsals were also wanting, except in the case of the little toe of the right foot which had two metatarsals. Another patient lacked all of the part of the right foot anterior to the ankle, there being a deficiency of 25 bones, and of all of the ligaments, muscles, vessels, and nerves. A boy of 7 had his right temple, cheek, and side of his nose covered with a thick growth of hair several inches in length. A child resembling a monkey lived for 10 hours. The face, body, and limbs were well developed. The head receded from the eyebrows backward and downward. The top of the head was flat with an oval space of ulcerated skin with an opening in the bone exposing the foramen magnum and the base of the skull around it. The frontal, parietal, and occipital bones rested on the base of the skull. The spinal column terminated abruptly at the foramen magnum. Only rudiments of the cerebrum and cerebellum existed. Transverse diameter at zygoma, 1.1 inches. Parietal bones, 2. Anterior posterior, 2.6 inches diameter. A boy of 9 had seven toes to each foot, the supernumerary ones being on the inner side of his feet. Both tibias were dislocated at the knee-joints and the upper ends projected obliquely outward, while the shafts were somewhat curved, with the lower ends projecting inward, throwing the soles of the feet inward and upward. The thumbs of both hands were wanting. Imperfect thumbs were attached in their whole length to the inner sides of the index fingers.

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Fig. 1.



Fig. 2.

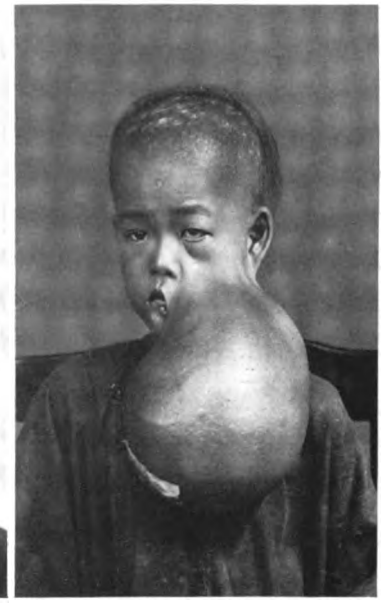


Fig. 3.

Fig. 1. Sarcoma of the eye. Removed.
Fig. 2. Sarcoma, recurrence.
Fig. 3. Lipoma in boy, age 11. Duration 9 years. Removed. Weight 4 pounds.

Locomotor. Caries, 2,401; amputations, 667; fractures, 666; dislocations, 469; arthritis, 215; supernumerary digits, 46; gangrene, 36. Tuberculosis of the bones and joints is usually seen between the ages of 10 and 20. Sequestra of from 3 to 5 inches in length were removed from the shafts of the bones of a number of children, usually boys. In most cases the fistulæ promptly heal. In one case the left clavicle which was necrosed, stood out as a bridge, denuded of skin and only attached at the ends. A patient was admitted with an ulcer which refused to heal; a piece of bamboo 3½ inches long, sharp at one end and ½ inch wide at the other, of the presence of which the patient was not aware, but which must have been there for a year, was removed. Gangrene of the feet from compression was sometimes seen. Cases in which the gangrene extended to the ankle, knee, hip, and elbow were treated. Sometimes the limb has already sloughed off.

Circulatory. The larger arteries were ligated 140 times, 34 for aneurism. There were 58 aneurisms, a few successfully cured by endo-aneurismorrhaphy; 34 angiomata; 6 varicose veins. This is quite a common condition, but as it does not cause pain or disability, operation is not desired. Two tumors of the carotid body were excised. One patient had an aneurism of the thoracic branch of the axillary artery, external to the ribs, extending from the clavicle to below the nipple and from the axilla to the sternum. This condition is most frequently seen in males, and at the average age of 38.

Digestive, upper tract. Thirteen ranulas; epulis, 32; cancer of the lip, 10; cancer of the tongue, 5 (many cases seen are inoperable); foreign bodies in the œsophagus, money, false teeth, bones, 10; stricture of the œsophagus, 3. Interference with the functions of mastication, deglutition, and respiration usually impels the patient to come to the hospital sooner or later. The causes may be a large fibroma of the upper lip, macroglossia filling and extruding from the mouth, bony ankylosis of the maxillæ, sarcoma of the superior maxilla which usually distends the cheek and completely fills the mouth so that the jaws cannot be closed, with displacement of the nose and mandible. The antrum may be cystic and

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Fig. 4. Congenital tumor, patient 1 day old. Removed successfully.

greatly distended or a large polyp in the antrum may be the cause. Tumors of the inferior maxilla, odontoma, osteosarcoma, cyst, or necrosis with abscess may be the cause. Multiple polyps, so large as to cause absorption of the nasal and submaxillary bones and bulging of the face and to fill the posterior pharynx, may become malignant.

Abdomen and wall. Hernia. Inguinal, 74; ventral, femoral and labial, 26; traumatic, 8; appendicits, 30; liver abscess, 34; acute general peritonitis, 10; tubercular peritonitis, 16; splenectomy, 5; intestinal obstruction, 7; intra-abdominal abscess, 5; carcinoma of the stomach, 5; tubercular adenitis, 3; gastro-enterostomy for gastric ulcer, 2 (this condition is fairly common, but the patients are cured by the physician); incised and stab wounds, 20; foreign bodies extracted, 18; fœcal fistulæ, 16; a few cases of adhesions; one cyst of the mesentery; intussusception, 2. In 43 exploratory laparotomies the condition was found to be inoperable. In many cases it does not require an operation to determine this. Gunshot wounds of the abdomen are frequently treated, usually late, often exsanguinated. The average age of the patients with inguinal hernia was 35 years. In a case of ventral hernia complicated with ascites and diseased ovaries, the hernia extended half way down to the woman's knees. To relieve his suffering a man with strangulated hernia made a deep vertical incision with a razor which divided the transverse colon for three-fourths of its circumference. A few cases of fæcal fistula secondary to hernia, usually in males, about 35 years of age, were treated, and there were several cases of this condition resulting from congenital hernia, umbilical and inguinal. A female patient had incarcerated inguinal hernia. A woman of 40 had a wide deep ulcer in the left iliac region. She reported that native medicine men had applied medicines for one month, after which a worm over 10 inches in length came out. Cutting open the belly with a piece of porcelain, more than one hundred little worms came out. The ulcer then closed.

Rectum and anus. Fistula-in-ano, 1,073; hæmorrhoids, 1,101; imperforate anus, 230; stricture of the rectum, 67; prolapse, 45; cancer, 9; one polyp. In one case a native physician was applying ointment with a large stick which slipped into the rectum. A large club was forced into the rectum of one patient as a punishment for adultery.

Genito-urinary. There were 3,500 operations for calculus of the urinary organs, of which 2,970 were vesical, 409 urethral, 116 preputial, 5 renal; hydrocele 1,858; stricture of urethra, 1,045; chancroid and bubo, 610; cancer of the penis, 207; extravasation of urine, 93; orchidectomy, 39; elephantiasis, 81—scrotum, 31, 15 each of the penis and labia, and 8 of the leg; foreign bodies in the bladder, 18, including needles, catheter fragments, gauze, sticks; hypertrophied prostates, 6; malignant growths of the bladder, 6; tubercular bladders, 4, 2 of which were ruptured; papillomata, 3; many gunshot wounds; 15 kidneys were decapsulated with temporary relief of symptoms. The cases of malformation of the penis are usually brought to the hospital at puberty. Venereal diseases are most common among soldiers and the leisure class. Gonorrhœa, primary and secondary syphylis, and chancroid and bubo are usually seen in both males and females between the ages of 25 and 30 and stricture at 40. A patient with calculus impacted in the urethra had retention for 7 days; 1½ gallons of urine and pus were removed. A male, aged 63, with phimosis from infancy had 40 preputial calculi. One calculus contained a portion of a beanstalk 6 inches long, introduced by mischievous boys while he was asleep. A boy introduced a needle 2 inches long into his urethra; it slipped into his bladder, and formed the nucleus for a stone.

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One calculus, 3 by 1 inch was bent to a right angle. A male, 24 years of age with a 12-ounce stone had symptoms for over 20 years. A farmer had lithotrity performed upon him five times. A boy of 7 had his bladder divided by a septum into two compartments, each of which contained a stone. Another with 10 years' duration of symptoms, had two calculi in the urethra. The bladder was divided into two cavities by a septum, with a stone in the anterior one. Thirty stones were contained in a sac below the neck of the bladder, and a single one in the bladder in another case. One patient had a stone in a urinary fistula and another one in the bladder. A patient with a 10-ounce stone had marked kyphosis. A brass ring which had been buried in a ulcer for 10 days was removed from around the penis of a boy. In a case of syphilis the penis was entirely gone and there was a large opening into the bladder.

Glandular. Three hundred and eighty-three cases of tubercular adenitis, usually cervical, went to the operating table for block dissection. Of goiters, there were 8 parenchymatous, 1 exophthalmic, and 1 with abscess. In the adjoining province this condition is very common. Most of the cases we see are intrathoracic.

Infections. Abscesses, large, 10,874; ulcers, 2,647; carbuncles, 70.

Respiratory system. Twenty-one cases of empyema, usually due to gunshot wounds; 4 of abscess of the lung. Eight cases required tracheotomy, 1 laryngotomy.

Tumors. There were 5,184 tumors, including 525 cases of carcinoma of the breast, 17 neuromata, and 3 teratomata. Seventy per cent were benign and 30 per cent malignant. A male of 40 had a large tumor, shaped like a violin, attached to his shoulder, with circumference at the base of over 3 feet, length of 2 feet, and width of nearly 2 feet. He spent most of the time reclining upon his tumor. Another presented himself at the hospital with a tumor attached to his back and extending nearly to the ground. It was over 4 feet in circumference and probably weighed from 75 to 100 pounds. When he sat down it formed a large circular cushion that elevated him 8 inches. It was proposed to remove it,



Fig. 5. Congenital tumor. Removed.

but his idol, which he consulted, decided against it. A young woman had a tumor attached to the chin and throat, more than 2 feet in circumference which weighed 16 pounds. A male of 50 presented lipomata of both cheeks of the same size, about 10 inches in circumference, hanging pendulous. A male of 49 was covered from head to foot with molluscum fibrosum, from the size of a pea to one foot in circumference. In the case of a woman with elephantiasis of the vulva of 10 years' duration, the mass hung half way to the knees. A farmer, 41 years of age, had an enchondroma, 1 foot in circumference, forming a perfect sphere, surrounding the middle finger of the left hand. Patient had tumor of the foot, which had grown for 10 years, covering most of the dorsum of the foot and passing to the plantar surface, between the first and second metatarsals, separating the toes for 2 inches. A female of 38 had a tumor of the breast of 10 years' duration weighing over 9 pounds. A male of 43 had cancer of the breast, duration 1 year. A male patient had a tumor of the median nerve the size of an orange. A female, 45 years of age, had a cauliflower-like tumor attached to and growing out of the nipple, which had dragged down the breast until it was suspended by a long pedicle reaching below the umbilicus. A male of 33 had hypertrophied cavernous bodies, which had commenced to grow when he was 6 years of age. The enlargement was 4 inches in diameter. The patient was married but never had erections, emissions, or children. A

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Fig. 6. Elephantiasis of the vulva. Removed.

teratoma weighing about 5 pounds, with length of 12 inches and greatest circumference 17 inches consisted of a fœtus in which the development had been arrested early in the fifth month of intra-uterine life. A broad attachment to the living child extended from the anterior portion of the trunk.

Wounds and injuries. Gunshot wounds, 1,380; incised and stab wounds, 364; burns and scalds, 313; foreign bodies extracted, 323, including 100 needles, 27 bamboo sticks, and 26 miscellaneous articles such as rings, catheter fragments, coins, bones, gauze, sticks; from the eyelid, hand, finger, œsophagus and trachea, bladder, uterus, rectum, stomach, colon. Three hundred and thirty-nine bullets were extracted. There were 42 powder burns. Eight patients were gored by water buffaloes. Ten were bitten by snakes, dogs, pigs, and human beings. One was clawed by a tiger. There were 97 bomb wounds.

Gynecology. Three hundred and sixteen cases of ovarian adenocystomata were operated upon. There were also 6 ovarian dermoids, 6 parovarian cysts, and 3 papillomata of the broad ligament; 42 vesicovaginal fistulæ; perineorrhaphy (delivered outside) required in 91 cases; uterine fibroids, 25; prolapsus uteri, 22; salpingitis, 9; repair of lacerated cervix, 40; hydatid mole, 5; hysterectomy, 28; vaginal atresia, 12; pronounced retroverted uterus, 15; rectovaginal cloaca, 5; labial tumors, 5; carcinoma of vulva, 3. Ovarian cysts are seen in girls of 17 and women of 60, the average age being 30 years; abdominal girth from 35 to 72 inches; weight of tumors from 10 to 116½ pounds; duration of symptoms, when patient first noticed enlargement of the abdomen until admitted to the hospital, from 3 months to 20 years, average 3 years. A girl of 17 had a cyst which weighed 70 pounds, about a fourth of which was solid. No uterus was found in a girl with imperforate vagina. Several cases of bicornuate uterus were seen. A female of 21 had an abdominal tumor the size of an orange, situated 3 inches below the umbilicus in the mid-line. When 10 years of age she had noticed a lump in the abdomen which was movable. An abscess had formed and discharged large quantities of pus, flesh, and hair. Native doctors (so called) had applied caustics, making fistulæ which had also discharged pus, hair, and three teeth.

Obstetrics. Normal deliveries, 875; forceps deliveries, 432; version, 184; retained placenta, 114; craniotomy, 93; miscarriages, 52; placenta prævia, 33; transverse presentations, 16; twins and triplets, 7; cæsarean section, 5; ruptured uterus, 5; prolapse of uterus, 8; retroverted gravid uterus, 2. A female, 24 years of age, had malaria with ascites and was supposed to be dying; a coffin and shroud were therefore provided and placed by her bedside. Labor commenced, and she was brought to the hospital. An enchondroma had grown directly across the pelvis originating from the tuber ischii. Cæsarean section was performed and a 4½-pound girl removed. In a case of twin pregnancy, the first child had been born naturally; the arm of the second presented, the uterus ruptured and the child had partly passed into the abdominal cavity. It was necessary to remove a dead fœtus from the uterus of a woman with smallpox, covered from head to foot with scabs, who had not been cleaned since the commencement of her sickness 2 weeks previous.

Ophthalmology. Entropium, 12,585; cataract, 3,052; pterygium, 1,385; iridectomy, 1,091; enucleation, 140; glaucoma, 72; tumors of the orbit, 61; foreign bodies extracted, 52; hypopyon, 40; staphyloma, 37; strabismus, 19. A male of 60 with dimness of vision in the left eye presented a white spherical body with a tail-like appendage in the anterior chamber, which was found to be a hydatid. In an infant of 2 months, the inner half of both upper eyelids were wanting and pterygia

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extended from both eyeballs to this part of the lids.

Otology, rhinology, laryngology. Nasal polyps, 641; tonsillectomy, 116; rent ears, 1,471; aural tumors, 32; radical mastoid, 8; occlusion of the nares, usually from smallpox, 20; sinusitis, 22. A sixteen year old boy was without an external ear or meatus.

Because of its spectacular results, surgery has made more rapid progress in the confidence of the people than medicine. During the past 10 years, although many advanced pathological conditions and inoperable cases are still seen, many more of operable abdominal conditions and acute cases have steadily been observed. Injuries from machinery and gunshot wounds, inflicted during the revolutions and by the ubiquitous robbers and pirates, and in clan fights are more frequently treated, and are brought to the hospital at earlier stages. Pain or serious disability usually drives the patient to the hospital. Many of the patients are afflicted with a variety of diseases and conditions, concomitant, or complications. The greater number are infected with intestinal parasites. Physiological standards for the Chinese people are being worked out.

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