

intrauterine douche of bichloride (1-5,000), followed by plain water, was given. The wound was sutured with deep stitches of silkworm-gut and superficial silk. No attempt was made to unite the bones, and no drain was used. The urethra was again held aside while the knees and trochanter were pressed together and three two-inch plaster straps bound about the pelvis. The patient was then turned into bed and a binder put on.

The only event of the puerperium, beyond a troublesome constipation, was a slight phlebitis causing some swelling and pain in the left leg. I think I was over-careful in keeping the patient on her back three weeks. In half that time it is safe to allow turning upon the side. At the end of three weeks a swathe with buckles took the place of the adhesive strips. At the end of the fourth week she walked, and a week later went home. I examined the joint at the end of three weeks, as the patient lay in bed. I could feel no intervening space. By flexing and abducting the legs I could feel a little motion. At the end of the fourth week, examining the patient standing and swaying from one foot to the other, I could feel perhaps one-third of an inch of motion.

The measurements of the child's head taken soon after the birth were:

		Normal.
Biparietal 4	3½
Sub. occipito bregmatic 4	3½
Occipito frontal 4½	4
Occipito mental 5½	5

A head above normal in all diameters.

A few words as to what can be gained by separating the pubic symphysis. Experiments made on the cadaver of pregnant women, as well as actual experience, have shown that the limit of safety in the separation of the bones is two and three-quarters inches. The increase of conjugate thus obtained is rather more than half an inch. It is estimated that a quarter of an inch of the biparietal diameters of the head bulges into the opening; also that it is compressed one quarter of an inch. These three factors together make up a full inch, so that with a normal head with a biparietal of four inches, we might expect easy delivery by symphyseotomy in a pelvis with a conjugate of three inches. If the head is small this could be reduced to two and three-quarters. This is regarded as the lowest narrowing adapted to the operation. A greater narrowing is better met by Cæsarean section. The upper limit is three and one-half inches (Morisani), or if the pelvis is generally contracted four inches (Garrigues).

Mortality of the Operation.—Among foreign operators, Zweifel of Leipsig nearly a year ago had had 23 cases with no death. Pinard's first death was his twentieth case. In Italy, from 1886 to 1893, there were 48 operations, with two deaths. "Up to date, there have been 60 operations in the United States, and four in Canada. There were 31 in 1893 in the United States, and there have been 18 this year. No death of a woman in the last 20, one death in the last 30, 2 deaths in the last 41. Six children lost in the last 41. No death of child or mother in the Canada cases." [These American statistics have been kindly furnished me by Dr. R. P. Harris, under date of December 3, 1894.] The deaths for the most part have taken place in women, very long in labor, and often septic at the time. When the operation is done under such conditions as I had, there should, of course, be no mortality. As

to the ultimate results, statistics are not so complete. Very few poor results are as yet published, and it seems assured that very few are to be anticipated.

FAIRLY EXTENSIVE CAUSES OF UPPER-LIP EXCISION; FREEDOM FROM RECURRENCE AT END OF THREE YEARS.

BY CHARLES A. POWERS, M.D., DENVER, COLO.

IN September, 1891, Dr. Alex. O. Snowdon, of Peekskill, N. Y., referred to me Mr. H., a man of fifty years, who gave a history of having first noticed a small nodule at the middle of the right half of the upper lip one year previously. The growth had been slow and painless, and there had been no ulceration.

Examination revealed a hard swelling which occupied the right half of the upper lip, limited above by the ala nasi, extending a little beyond the median line to the opposite side and somewhat beyond the angle of the lip upon the cheek. The skin was thickened, but normal in color. The mucous membrane seemed normal. A small piece was removed, and examined by Dr. Farquhar Ferguson, who pronounced it epithelioma.

An operation was performed under ether. The entire mass was cut away, the incision including about half an inch of tissue outside the induration limit in all directions. This included the margin of the right ala nasi. A short incision was made out on the cheek, and the cheek tissues loosened. The remainder of the lip was loosened, and the flaps approximated and held in place by silver and silk sutures. There was prompt union throughout. Microscopic examination of the part removed showed a fine margin of healthy tissue in all directions.

The patient has since been seen at intervals of three months. There has been no evidence of recurrence. In November, 1894, Dr. Snowdon writes: "I saw Mr. H. to-day. There is no sign of recurrence."

The foregoing case is not exceptional. While cancer of the lip more frequently affects the lower, it is occasionally seen in the upper. The prognosis in the upper lip is better than in the lower, because of the lesser lymphatic connection. The case serves, however, to illustrate the advantage of wide excision. So far as we know to-day, excision offers the best prospect of cure in carcinoma. The key-note may be stated as: Early diagnosis, prompt and wide excision, and careful surveillance of the patient afterward. This is trite; but that it is not sufficiently understood is proven by the large number of cases subjected to palliative treatment which reach the surgeon too late to permit the thought of cure.

So in a recent report by the writer of cases admitted to his service at the New York Cancer Hospital,¹ it was shown that in 81 per cent. of these cases the disease had so far progressed that operative procedure would be purely palliative. In this article the proposition was made to classify cases of operable cancers as follows:

(1) Those in which the disease is so limited that it is thought reasonably probable that it is entirely excised and that the patient has a fair prospect of cure.

(2) Those cases in which the surgeon is doubtful, after removal, whether he has gone beyond the limits of invaded tissue.

¹ See New York Medical Journal, April 14, 1894.

(3) Cases frankly incurable, in which a palliative operation affords a fair prospect of adding to the life and comfort of the patient.²

It is obviously irrational to place in the same class a small epitheliomatous ulcer of the lip and a case which has so far progressed that operation must be purely palliative. Under the foregoing classification the case of Mr. H. would come under the second heading.

Medical Progress.

RECENT PROGRESS IN OPHTHALMOLOGY.

BY MYLES STANDISH, M.D., OF BOSTON.

MICRO-ORGANISMS IN THE CONJUNCTIVAL SAC.

BACH¹ found in apparently healthy conjunctival sacs twenty-seven micro-organisms; of these, ten were pathological. Each of these were planted upon an abraded surface on a disinfected rabbit's cornea with the following results:

(1) *Micrococcus albus liquefaciens* of Besser. This produced a slight gray infiltration about the point of infection which disappeared in four days. Some pericorneal injection. No iritis.

(2) *Micrococcus pyogenes aureus*, an extremely distinctive pathogenic organism.

(3) *Micrococcus pyogenes albus*. This is also a very active and destructive organism.

(4) *Micrococcus flavus liquefaciens*, which is said by Flüge to exist in air and water. This produced corneal ulcers and muco-purulent secretion.

(5) *Diplococcus citreus conglomeratus*. This organism is found in blennorrhagic discharges and in aerial dust. This produced after twenty-four hours a well-defined gray infiltration which disappeared in three days. Pericorneal injection. No iritis or hypopion.

(6) *Micrococcus aurantiacus*, which produced a gray infiltration about point of infection which soon disappeared.

(7) *Staphylococcus cereus flavus*, which gave rise to corneal ulcer in twenty-four hours after inoculation, with iritis and sometimes hypopion.

(8) *Micrococcus coryzal*, infiltration about infected point with pericorneal injection and iritis, but no hypopion.

(9) *Streptococcus pyogenes*, which set up a rapidly-spreading ulcer with iritis and hypopion.

(10) One unknown bacterium resembles the *micrococcus caudatus* of Cohn, which our author frequently found in the sero-pus of acute conjunctivitis and which he names *micrococcus conjunctivitis minutissimus*.

To determine what importance the presence of these micro-organisms played in the question of antiseptics in ocular surgery, Bach introduced into the conjunctival sac certain organisms which were known not to be present either in the conjunctival sac or the nose and as a result of his experiments concludes that the infection is carried from the conjunctival sac into the nose and never in the opposite direction as long as there was no obstruction of the lacrymal canal, even in the presence of a purulent dacryocystitis, this was true as long as there was partial drainage into the nose.

¹ Von Graefe's Archiv. f. Ophthalmoscopy. Band xI, theil. 3, p. 131.

² It is needless to say that no sharp lines can be drawn in such division. One estimates an individual case as best he can.

Thirty-seven experiments were made to determine whether the tears possess any germicidal quality or simply weaken the morbid action by washing away the colonies. In sixteen of these experiments the pathogenic bacteria were exposed for an hour to tears warmed to 58°-70° Celsius, and in ten instances the colonies were greatly decreased; in six there was less marked diminution. In nineteen experiments in which the tears were kept at ordinary temperature only four showed an increase of the colonies. Further experiments showed that the aqueous taken from the human eye had no germicidal action, and that the *staphylococcus* flourished upon a soil of vitreous humor. Our author believes in the mechanical removal of the germs by the washing out of the conjunctival sac and the edges of the lids with damp cotton, instead of the application of antiseptics for their germicidal effect; and he advocates the use of the physiological salt solution in this cleansing process. He thinks that the salt solution should be used in any event whether antiseptics are used or not.

Our author, however, thoroughly believes in the disinfecting action of eye salves and after many bacteriological observations concludes that pure American vaseline is in itself a valuable germicide and should be employed as a vehicle for the medicaments used. Experiments showed that sublimate salves 1-3000 and nitrate of silver, two per cent., killed bacteria in a few minutes. He made a number of experiments with the surface layers of the boxes of ointment in daily use in Würzburg Eye Klinik, taking the ointments before mentioned and one of one-half per cent. of the acetate of lead and did not discover in a single instance that any bacteria were present.

TUBERCLE OF THE IRIS.

Sandford² reports three cases of tubercle of the iris, one of which, on account of its subsequent history is of especial interest. It was a case of primary iritic tuberculosis, the ciliary region, suspensory ligament, and apparently the lens itself, being infiltrated with the tuberculous elements. The case occurred in a child aged five years, of tuberculous parentage on both sides, whose only brother died of tuberculous meningitis. There was no evidence of tuberculous mischief in any other organ. The globe was therefore excised and sections made. The tuberculous mass half filled the anterior chamber. The patient improved greatly in health and has been under observation ever since (eight years). At present she is a fragile, delicate-looking girl, but free from any especial ailment.

KERATO-MYCOSIS ASPERGILLINA.

Fuchs³ reports the case of a man, fifty-three years of age, who had an inflammation in one eye attended by fever; the fever disappeared in a few days but the inflammation of the eye continued. When first seen, nearly a month after the onset of the disease, the conjunctiva of the lid was red and covered with a trachomatous-looking papillary growth. The retro-tarsal fold was free. The central portion of the cornea had an intense gray opacity seven millimetres in diameter, separated by a sharply-curved furrow from the surrounding cornea. This portion of the cornea was dry, yellow and crumbling. There was hypopion and some posterior senecchia. This central portion was easily removed with forceps, but was reproduced in a

² Ophthalmic Review, May, 1894, p. 178.

³ Wiener klin. Woch., No. 17, 1894.