supported by the report of one successful case. For the few irreparable lesions of the median nerve in the forearm this operation may be worth a trial.

REFERENCES.
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HERPES AND VARICELLA.

BY

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THE following account of an outbreak of varicella in a ward, apparently originating in a case of herpes zoster, seems of sufficient interest to record.

W. G., female, aged 8 years, was admitted to a diphtheria ward on November 16th, 1920, suffering from a severe attack of that disease. Unfortunately she developed scarlet fever from another case admitted with diphtheria, who was also incubating scarlet fever. W. G. was transferred to a small ward, X, on the same day. Here were three other children, M. T., A. F., and L. Y. For administrative reasons these four children were moved on January 27th to a large ward, F., containing twenty-five beds and cots.

On February 4th, a week after transfer, W. G. developed what appeared to be a typical herpes zoster over the area supplied by the twelfth dorsal and first lumbar nerves on the left side. The distribution extended completely round the left side of the trunk, within the area indicated—that is to say, from the mid-line in front to the mid-line behind. The lesions were closely set and went through the usual changes of herpes zoster. As the question of the relationship of herpes and varicella was in our minds for investigation when opportunity should arise, a careful examination was made for scattered lesions elsewhere on the body, and none were found. The point that we should like to mention particularly is the fact that the child had absolutely no pain, either before or during the persistence of the lesions. Herpes zoster, of course, is commonly a painful affection. W. G. had no previous history of varicella and presented no scars of a former attack.

On February 17th—that is, thirteen days after—three children in the ward developed varicella; on the following day, the 18th, four more showed the typical lesions, and by February 27th another child had incubated the disease. The position of the children in the ward, their respective ages in years, and date of onset of varicella, were as follows:

South Side of Ward.

No. of Bed.	
1.	Died. S.F. and Diph.
2.	V.P. Aged 6.
3.	V.P. Aged 5½.
4.	X. Aged 6.
5.	W. G. Aged 8. Herpes zoster. February 4th.
6.	L. Y. X. Aged 7.
7.	V.P. Aged 9.
8.	V. Aged 7. February 27th.
9.	V.P. Aged 7.
10.	X. Aged 12.
11.	X. Aged 6.
12.	V. Aged 5. February 18th.
13.	V. Aged 6. February 17th.

North Side of Ward.

No. of Bed.	
14.	X. Aged 5.
15.	X. Aged 3½.
16.	M. T. V. Aged 4.
17.	X. Aged 5.
18.	X. Aged 4.
19.	A. F. V.P. Aged 6.
20.	V. Aged 2½. February 17th.
21.	V. Aged 4. February 17th.
22.	V. Aged 2. February 18th.
23.	V. Aged 5. February 18th.
24.	V.P. Aged 7.
25.	X. Aged 8.

V.P. = Varicella previously. X. = Exposed to infection.
 V. = Exposed to infection and developed typical varicella.
 L. Y., M. T., A. F. = three patients from Ward X.

No case of varicella had occurred in the hospital for some weeks previously, and certainly the case of herpes has not been exposed, as far as is known, to any risk of varicella infection. When W. G. developed herpes she had been in hospital about eleven weeks. There had not been a previous case of herpes zoster in the hospital for some months, and then it occurred in a ward far removed from W. G.'s, and, it should be noted, was not followed by varicella. W. G.'s herpes arose *de novo*. Did she originate the outbreak of varicella, or was there a missed case presenting only one or two lesions, the time relation ship being merely a coincidence?

Morphologically, W. G.'s lesions were typical of herpes zoster. She had no previous history of varicella, nor scars of a former attack, neither has she since developed varicella as a result of contact. The complete absence of pain or even of appreciable malaise are noteworthy. The incuba-

tion period of thirteen days is on the short side as compared with previous ward outbreaks of varicella in this hospital in the earlier part of last year. Previous outbreaks have had an incubation period of from seventeen to twenty-one days. The incubation period of varicella is of course very variable, and the present outbreak may be due to another strain of the virus. Varicella in this country is practically never fatal. The experience of one of us (E.H.R.H.) at a military infectious diseases hospital in Mesopotamia was that varicella in Indian troops and followers was very common and frequently severe, death from pulmonary complications being by no means unknown. Careful pathological investigation of such cases might lead to important information upon the etiology of the disease.

CHRONIC SUPPURATIVE OTITIS MEDIA:

FOLLOWED BY LEFT TEMPORO-SPHENOIDAL
 ABSCESS AND MENINGITIS.

BY

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THE following case deserves recording by reason of (1) the presence of pus cells and bacteria in the cerebro-spinal fluid, and (2) the reaccumulation of pus in the brain after having been once successfully evacuated, with extensive paralysis and ultimate perfect recovery.

L. P., female, aged 23 years, was admitted to hospital on October 27th, 1920, in a drowsy condition, with a temperature of 101.6°, pulse 82, respirations 20.

History.

The history was only obtainable from the patient, as she had no relatives or friends. When roused she stated that she had had ear trouble (doubtful on which side) since Christmas, 1919, the cause unknown. She had severe pain in the left side of the forehead and left temporal region in Whit week 1920, and visited a hospital in the district, obtaining some relief. The headache had been worse for the last three weeks.

Condition on Admission.

She was drowsy, but could be roused to answer questions. She was slightly aphasic, complained of headache on the left side of the head. She had vomited twice since admission.

Nervous System.—(a) Motor: There was slight weakness in the grip of the right hand, no other paresis or paralysis. The sphincters were normal. There was some rigidity of the neck muscles. (b) Sensory: There was nothing abnormal as far as one could ascertain in her drowsy state. (c) Reflexes: There was slight increase of the right knee-jerk. The right superficial abdominal reflex was brisk. No ankle clonus or Babinski reflex was present. (d) Eyes: The pupils were dilated, equal, reacting to light. The discs were not examined. There was no nystagmus, no photophobia. There was marked loss of the naming centre.

Ears.—The right membrane had a small central perforation with a viscid purulent discharge. The left had marked meatal stenosis, a large vascular polypus obstructing the already narrow meatus. There was no visible otorrhoea. There was no tenderness or oedema over the mastoid processes, no pain on percussion of the cranium. The tissues of the neck were normal.

Lumbar Puncture.—There was positive pressure and a cloudy cerebro-spinal fluid. (See pathologist's report below.)

Operation (October 27th, 1920).

A radical mastoid operation was performed on the left side. The mastoid antrum was full of pus under great pressure, and very foul. The dura mater of the middle fossa, exposed by disease, was covered with granulations bulging and pulsating, and the middle ear was full of granulations. The lateral sinus and dura mater of the posterior fossa, exposed by chisel, were found to be healthy. The remains of the tegmen tympani with a portion of the squamous portion of the temporal bone were removed, and the left temporal lobe was explored. A large abscess containing very foul pus was evacuated and drained by two rubber tubes side by side (diameter ¼ inch). The auricle was stitched forward and a buttress built around the margin of the wound with gauze so as to avoid pressure on the tubes.

Pathologist's Report (Dr. Renshaw).

Cerebro-spinal fluid: Pus cells were present. A large number of Gram-negative diplococci were in the film (? *Diplococcus mucosus*), present in culture, also in agar, in large numbers.

Pus from brain abscess: Staphylococci and streptococci were present in pus in large numbers, and some long thin curved Gram-negative bacilli (? anaerobes). Necrotic debris was present, but very few pus cells. Later, *Diplococcus mucosus* was found in a culture of the brain pus.

After-History and Treatment.

Urotropin gr. x four-hourly was given for the first forty-eight hours, and then three times a day. The outer dressing was changed daily after twenty-four hours and the mastoid cavity irrigated, the brain cavity draining fairly well.

November 2nd, 1920. Mentally the patient was greatly improved, temperature 99.6°, pulse 110, respirations 22. The wound was very foul. Tubes were removed, followed by a copious discharge of pus. The abscess cavity was gently irrigated, and the tubes replaced.

November 6th, 1920. Mentally the patient was good, taking her food well. Temperature and pulse were normal. The wound was cleaner, and the tubes being naturally expelled, were shortened.

November 11th, 1920. The patient's temperature was 101°, pulse 100, respirations 18. The wound was looking very clean. The patient appeared very well and had no complaint. The tubes had been expelled two days ago. There was an oedematous-looking bulging of the brain, into which sinus forceps were gently inserted, but only a few drops of a clear fluid were evacuated. In the evening the patient suddenly became unconscious and completely paralysed on the right side, with severe headache (hand to left side of head), temperature 101°, pulse 116, respirations 18, pupils dilated, the right side of the face immobile, and the face cyanotic. The sinus forceps were inserted into the brain cavity, and at first clotted blood was evacuated, but at a depth of 2½ in. (upwards, forwards, and slightly inwards from the tegmen antri) a copious discharge of pus and gas was evacuated. A tube would not remain *in situ*, so the oedematous hernia cerebri was excised flush with the tegmen, and the cavity was lightly packed with gauze.

The patient made a slow uninterrupted recovery. The temperature gradually subsided after reaching 103.8° on November 13th, and was normal by November 21st, remaining so. An extensive hernia cerebri, dressed with green protective, drained well and gradually subsided without any lumbar puncture being performed. The paralysis gradually improved. On February 11th, 1921, the patient walked normally, there was no sign of any paresis, the wound was healed, the ear dry, and she was mentally well. On being seen on March 6th, 1921, the patient was very well and mentally sound.

In conclusion, I wish to draw attention to the following: (1) No tenderness, pain, or oedema over the mastoid, by no means uncommon. (2) Exposed dura mater was pulsating well (a pre-operative lumbar puncture performed). (3) Lumbar puncture was never employed therapeutically throughout the course of the disease.

As an explanation of the sudden onset of coma on November 11th, 1920, I would suggest that the septic focus still present in the brain had ulcerated through a blood vessel, producing a sudden haemorrhage with compression and hemiplegia (clot was first evacuated from the second brain abscess cavity). Naturally my first impression was that the abscess had ruptured into the lateral cerebral ventricle, a supposition which is, I think, untenable having regard to the subsequent progress of the case.

Memoranda:**MEDICAL, SURGICAL, OBSTETRICAL.****ENCEPHALITIS LETHARGICA TREATED WITH INFLUENZA BACILLUS ANTIGEN.**

IN the BRITISH MEDICAL JOURNAL of March 27th, 1920, one of us (W. M. C.) related the histories of four cases of lethargy treated successfully with pure influenza antigen (vaccine). The paper has apparently received little attention, since recent literature reveals no ideas as to the nature of the infection, much less does it reveal any successful line of treatment. We think it, therefore, desirable to relate the following case, the treatment of which with pure influenza antigen was just as dramatically successful as that of No. III of the other cases previously recorded.

The patient, a girl aged 5 years, living in the South of Ireland, was taken ill on February 18th, 1921, with shivering, drowsiness and headache most intense behind her eyes. She was seen (by D. C.) on February 21st, when her temperature was 102.6° F., the pulse 120. She was asleep, and could only be roused with difficulty; when the eyes were open the conjunctivae were seen to be injected—the typical pink eye of influenza. She was very constipated, necessitating enemas, but she had not incontinence of urine. There was a watery discharge from the nose. She had muscle twitchings—very marked in the eyelids. When roused she answered questions slowly but intelligently, but was profoundly asleep again within a few minutes. Her temperature fell to 99° F. and her pulse to 95 by February 24th, but the lethargy seemed to increase, the patient only being awake when roused

to take food. W. M. C. was then consulted, and 1½ million *B. influenzae* antigen were given on the morning of March 2nd under the skin of the hip; her temperature was then 99° and the pulse 95. She was asleep again a short time after the injection. At the end of six hours she woke up quite bright and cheerful; the temperature had fallen to 97.4° and the pulse to 76. She remained awake four hours. On March 4th she remained awake from 9 a.m. to 6 p.m. The drowsiness then gradually increased again until, on March 10th, she was given 2½ million. She slept for three hours and woke up bright and gay. Next day, however (March 11th), a reaction appeared. She slept a good deal. She complained of headache. The temperature rose to 99.4° F., the pulse to 115. The discharge from the nose came on again, and the conjunctivae were injected. These symptoms had passed away by the next day, and she has remained normal in every way ever since. She has been given a few more increasing doses of antigen.

The rapid relief after the first dose, just as significant diagnostically as the focal and general reaction after the second dose, makes it certain to our minds that the influenza bacillus was the causative microbe. Unfortunately, owing to the distance from a laboratory, no satisfactory bacteriological examination of the nasal discharge could be made, and it was not attempted.

The antigen used was made from a recent growth on human blood agar and was not killed by heat, so that nothing was done which would in any way reduce its toxicity, and therefore its potency as an antigen.

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ARTIFICIAL RESPIRATION IN THE NEWBORN.

THE method of artificial respiration here described has, in my experience, proved more certain and effective than any method now in vogue. It is, as will readily be understood, only applicable in the case of infants. I was led to elaborate it by noticing that a child who had inspired liquor amnii, and was held head downwards in order to free the respiratory passages, emitted a sigh when the abdominal contents pressed on the diaphragm. This led me to reverse the position of the infant to allow the lungs to expand.

The infant is held in the following way: The back of the neck lies on the palmar surface of the left hand, the occiput being supported in the hollow between the thumb and forefinger which grasp the mastoids. The right hand holds firmly both ankles of the infant from behind, so that the ulnar side is on the calves, the radial side at the heels. The infant is held with its long axis nearly vertical, at an angle of about 15 degrees, head upwards, and is then allowed to move quickly downwards by its own weight some two feet. The abdominal viscera fall towards the pelvis, the diaphragm is depressed and inspiration initiated. The infant is now lifted, feet first, to the right of the operator, so that it is now head downwards at an angle of 15 degrees to the vertical. It is again moved smartly downwards, head first, about two feet. The abdominal viscera, falling against the diaphragm, expel air from the lungs equivalent to expiration. This movement, at least to some extent, must also act as massage of the heart and so be a direct stimulant. The whole cycle is repeated about fifteen times to the minute, and the first movement will often elicit a sigh if not a more pronounced response. Needless to say all semblance of violence must be avoided.

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OLIVE OIL SOFT SOAP AS A SHAMPOO IN PITYRIASIS CAPITIS.

THE exceedingly common affection called pityriasis capitis or dandruff is often unsuccessfully treated by the general practitioner owing to neglect of the great essential of systematic shampooing at regular intervals, and with the much advertised use of "shampoo powders" this disease is aggravated, especially in childhood, whereas if the scalp disease was cured in early life there would be no kindred eruptions of the face and trunk in adult life. The great advantage of olive oil soft soap as a shampoo is, first, that it acts as an antiseptic, thereby rendering the organism, which is confined to the superficial layers of the epidermis, and which is responsible for the disease, inactive; secondly, the solvent and stimulating action is less irritating than that of ordinary soft soap. The scalp should be shampooed regularly once a week in bad cases.