

Treatment: The Plan

Treatment, preventive and curative, must first be directed towards the primary source of the disease: here is the key to success. Once established, the autolytic eczema will refuse to go until this is healed. To prevent the secondary eczema, the use of moist permeable absorbent dressings, changed often till the surface has skinned over, is advisable, with the avoidance of all imporous dressings that stifle discharge. This, early in the autolytic outbreak, will prevent or abort the eruption.

The patient ought to be confined to bed, with six-inch bed-blocks under the foot of the bed to hasten the return circulation. The leg congestion being gravitational, this elevation will quickly help to control itching and heat and tightness of the skin, and will go a long way to expedite healing, shortening the time taken measurably.

Treatment of the local patch is best done by applying boric fomentations or wet compresses of hypertonic saline solution, replaced every four hours for three days, to be followed by acriflavine emulsion soaks on gauze, renewed twice daily, for a further ten days. In the case of an open ulcer, the cleansing foment is, after the first three days, followed by carefully adjusted "red lotion" moist dressings morning and night; later, iodine-and-starch paste is applied as a thick spread, changed once a day, then, with improvement, once in two or more days. Bandaging should be firm and supporting, extending from the toes to below the knee, to counter the passive venous congestion of the leg, which only delays repair. This paste, with a tight bandage in the daytime and bed-blocks at night, is far and away better than the Unna-paste-impregnated bandage, which only holds up and confines any discharge, to become potentially, sometimes actually, harmful.

With the conversion of the hot dry surface of the primary patch into a moist freely discharging area, the patient is relieved of much discomfort; and the autolytic eczema begins to fade spontaneously, having itself needed little actual attention beyond the direct application of zinc cream morning and night, or the painting on of a weak ichthyol-in-calamine liniment (5i to 5viii), as being protective and antipruritic. As covering for the arms cotton sleeves are cool and more acceptable to the patient than lint and bandages. When the scaling stage is reached, which is the end-process, a simple cold cream at nights is all that is required, any dressings being discarded.

With the appearance of autolytic eczema, to secure relief for the itching, with peace of mind and enough sleep, nothing is so effective as fractional doses of phenobarbitone with bromide at spaced intervals for as long as is necessary. Autohaemotherapy is of some service at the start, so is non-specific protein therapy, though neither need be overdone or its value overestimated.

The diet should be lacto-vegetarian and salt-free, with an ample daily allowance of fluids (five or six pints, all told); condiments and spices are to be forbidden and over-flushing of the skin avoided. Two drugs are of real use, if indicated: acid. hydrochlor. dil. *B.P.*, given in full dosage soon after meals; and a one-drachm morning dose of magnesium sulphate in hot water, for a time, daily.

Summary

Autolytic eczema is not uncommonly met with in medical practice: the malady has increased in incidence during the war years. Much standing at work while suffering from a patch of open dermatitis in the leg is a predisposing cause, if an indirect one; thus far can autolytic eczema be accounted "occupational." The condition could not exist without the stubborn primary focus to begin it, and refuses to fade before this itself has healed. As a rule, the primary disease persists for long before the secondary outbreak appears; there is a wide, though varying and indeterminate, interval between the starting-point of the one and the other. Peculiarly, the trouble most often originates in a patch about the lower half of the leg or about the ankle; but not always; the primary mischief may occur in a localized dermatitis in the arm or elsewhere following injury. The typical expansive eczema autolytica follows a primary source in the leg; a milder, less extensive eruption when the local source is elsewhere. It is the rule that the eruption breaks out unexpectedly. What actually times and detonates the outbreak has yet to be determined.

The secondary eczema has not to behave like a septic toxæmia, to show massive invasion by way of venous or lymph channels: the course taken, and the ready control by early treatment before secondary characters add themselves to the vesicular eruption, suggest a non-virulent auto-intoxication with sensitization. Sepsis alone does not afford so satisfying an explanation as does the theory of causation by autotoxic dermolysin, the constitution of which is not made manifest by present-day test methods.

It is not to be forgotten that "the skin faces both ways," having an internal surface coextensive with the external and of more importance to the bodily economy. Clearly, the mode of conveyance is vascular, the lysin reaching and acting upon the skin itself from within by way of the capillary loops of the papillary body, likely enough erupting at points of slowing in the circulation there subject to the play of physical influences.

The condition is well and truly named "eczema," qualified by the descriptive term "autolytic." Knowledge of the whole subject is fragmentary still; yet we know that all true eczema is in its proper form vesicular and reactional; that the correct treatment should not be symptomatic merely, but, to be radical enough, ought in the absence of a specific cure to aim at removing the cause. If the remedy is suspended or is unsuitable the disease may take a firmer hold, to become aggravated and in its course lengthy and perverse.

SEGMENTAL MOVEMENT OF THE PUPIL

BY

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In 1911 C. H. Sattler described a pathological movement of the pupil which he called "Wurmförmige Contractionen der Sphincter Pupillae." It is a segmental movement, or twitch of the iris margin. It may be seen in a pupil which has no normal reaction to light, or in some cases in which the light response is present but much diminished. At any one moment during the examination of such a pupil only a single twitch may be apparent; or another similar twitch may appear at the same time further along the pupil margin. Loewenstein described some further cases in 1917 and 1919. He called the phenomenon "Harmonica Contractionen der Sphincter Pupillae." The worm contraction, or undulate contraction, of the pupil border is much less commonly seen than a single segmental movement or double synchronous segmental movement of the pupil in the field examined. The synchronous twitch giving the concertina-like movement would seem to be due to feeble impulses arriving at the same time, while the undulate movement occurred when these feeble impulses arrived at contiguous parts of the pupil border at slightly different times. The amplitude of the movement varies in different cases. Sometimes it can be seen with the naked eye, as in the patient quoted below blinded by quinine. The monocular loupe ($\times 10$) or the low power of the corneal microscope ($F/55$ mm.) suffices for the recognition of most cases. Only the large inactive pupils of blind or near-blind cases of luetic optic atrophy required the higher powers of the corneal microscope for the recognition of the tiny abnormal movements which were present. They were best seen in the beam reflected from the lens surface. We have been able to observe a progress in amplitude of this segmental movement in a man who had paralysis of the pupil as a result of head injury. At first the movement was tiny, gradually increasing in extent with recovery until there was an entire contraction of the pupil.

The phenomenon has not stimulated much curiosity. In order to determine whether or not the sign had any localizing value a series of cases were examined. Of three cases of luetic optic atrophy with no light projection and large inactive pupils, examined under high magnification, two showed segmental contraction of small amplitude and one an undulate or travelling contraction of the pupil border. Two cases of post-traumatic optic atrophy having no light projection in the affected eye showed segmental contractions. Patients with partial field loss after head injury and patients with partial field loss in glaucoma showed no segmental movement. One man with Leber's disease having a visual acuity of 3/60 Snellen, right and left, had a marked segmental movement. A middle-aged healthy man blinded by quinine showed active segmental movement from the outset of the observed period, which extended over two months. The movement gradually acquired greater amplitude, merging into a total pupillary response to light. Even when the total response to light was established the segmental quality was evident in relaxation until it finally

disappeared. Two cases of retrobulbar neuritis had those abnormal movements, and in these the pupils were markedly dilated. In the following cases the motor side of the pupillary arc was presumably affected. A middle-aged man sustained a basal fracture of the skull in falling off a bus. He had good vision in both eyes, but had a complete third-nerve palsy on one side, and was Wassermann-negative. There was an undulate movement of the pupil border. A similar case observed over some months gradually recovered and the segmental movement merged into the normal total response. An elderly woman, having good vision in both eyes and Wassermann-negative, developed an internal ophthalmoplegia of vascular origin, and in a pupil which was immobile directly and consensually to light segmental movement was seen. A young married woman—Wassermann-positive, myopic-astigmatic, with good corrected distance vision—complained that she could not read. Both pupils were dilated and responded poorly to light, and there was bilateral paresis of accommodation. Both segmental and undulate contraction of the pupil were seen, and occasionally there was a feeble total movement of the pupils. This woman has been observed over 18 months and the signs are unchanged; there has been no recovery with establishment of the normal contraction. Her antisyphilitic treatment has been erratic. Two cases of unilateral Adie's pupil showed the abnormal movement. Squinting amblyopes never showed the abnormality.

To watch the behaviour of the pupil in this respect under the influence of factors acting peripherally, routine mydriasis with homatropine 1% was studied. After about 10 minutes the lessening total contraction gave place to segmental contraction before immobility. On the other hand, no abnormal movement was seen after mydriasis from subconjunctival injection of cocaine 2% with adrenaline.

Discussion

This pupillary unrest may occur, then, in sufficiently severe disorder of the afferent or efferent nervous paths to the sphincter of the pupil. Further, it may be induced by the peripheral action of mydriatics which inhibit the choline flux, but not by those mydriatics which stimulate the sympathetic. It is not seen in the contracted pupil. It would seem to be due, first, to diminished conduction in the nerve paths to the sphincter pupillae, for the movement is seen only in pupils of diminished response; and, secondly, there must be a pathological variation or inequality of flux within the nerve plexus. Some vestigial impulses get through and produce a local twitch, and in the immediate neighbourhood these impulses fail, or arrive after an interval to produce an undulate reaction. The chronaxie of the nerve paths to the sphincter is unequal throughout its distribution in these cases. Wolfrum (1926), when examining the minute histology of the pupil, was struck by the radial distribution of the nerve fibres entering the sphincter pupillae, and he speaks of the Sattler phenomenon. If the distribution of the third nerve to the sphincter of the pupil were a fine uniform plexus it would be difficult to understand a local emergence of movement, but as it is supplied by twigs running into the muscle fibres and at right angles to them the explanation of the origin of the movement becomes acceptable.

Finally, the sign, so far as this short investigation will allow us to conclude, would not appear to have any localizing value; it is a fibrillation of the pupil resulting from impaired integrity of the nervous arc of the sphincter pupillae occurring at any part of the arc.

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A. M. Harvey and F. T. Billings (*Amer. Heart J.*, 1945, **29**, 205) report three cases of coronary occlusion after the institution of therapeutic hyperpyrexia for sulphonamide-resistant gonococcal urethritis. All the patients were young adults with no previous cardiovascular disease. In no instance was the patient critically ill. Electrocardiograms in each case showed progressive changes similar to those observed in patients with occlusion of the anterior ascending branch of the left coronary artery.

Medical Memoranda

Fistula between the Small Intestine and One Horn of a Uterus Bicornis

The following notes of an unusual case of fistula may be found of interest.

CASE HISTORY

A single woman of low-grade mentality, 28 years of age, was first seen in March, 1944, at the obstetrical department, where she was found to be pregnant. The pregnancy was complicated by hydramnios and confirmed by radiography. On May 29 she was prematurely delivered of a stillborn exomphalic male foetus. The puerperium was characterized by an irregular temperature with rather offensive lochia, but she soon settled down and was discharged on the 14th day.

On July 6 she was readmitted complaining of an offensive vaginal discharge and severe perivulval irritation. The vulva was grossly excoriated and profuse discharge was coming from the vagina. On vaginal examination, among other debris several undigested cooked green peas were seen coming through the cervix uteri. The patient had eaten peas four hours earlier. The discharge continued while she was under observation, and consisted of undigested food giving bile-pigment reactions. It was obvious that a fistula existed between a high part of the intestinal tract and the uterus.

On July 26 the abdomen was explored and on the left side of the pelvis a curious pyriform uterus was seen. At the fundus there was an adherent matted mass of small-intestine coils. The coils were gradually separated, and one was found welded on to the fundus. On separation this coil had an opening the size of a sixpence continuous with the uterine lumen. Both openings were closed.

Further examination of the uterus revealed the fact that the pyriform uterine swelling was an enlarged horn of a uterus bicornis. Separate Fallopian tubes opened into the apex of each horn. It is probable that the fistula had resulted from an attempt to end the pregnancy.

I am indebted to my colleague Mr. Barnie-Adshad for the opportunity to operate on this case, and to Dr. J. C. Miller for help with the case notes.

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Melaena due to Peptic Ulceration of a Meckel's Diverticulum

The case recorded below seems of sufficient interest and rarity to merit description. The occurrence of peptic ulceration in a Meckel's diverticulum is rare in any country, but seems particularly rare in England. In a review of the literature up to 1934 (Johnston and Renner, 1934) 60 cases of the condition had been described, of which only seven had come from English journals.

Meckel's diverticulum, a remnant of the vitelline duct, is present in 2% of the population, and is one of the sites of heterotopic gastric mucosa formation. It is prone to the same diseases—of which peptic ulceration with haemorrhage is one—as the stomach and the first part of the duodenum. The majority of cases occur in children and young adults of the male sex, although two of the four cases reported by Chesterman (1935) occurred in the female. The presenting symptom is rectal haemorrhage. The bleeding is often recurrent and may produce a severe degree of anaemia. Pain is not always present, but when it occurs is colicky in type and umbilical in situation. In the absence of perforation there is usually no clinical abnormality detectable on abdominal or rectal examination. It is impossible to demonstrate the diverticulum on radiological examination.

CASE REPORT

A boy aged 16 was admitted on June 24, 1944, with abdominal pain and the passage of blood per rectum for the previous 13 hours. The onset was sudden, and occurred while he was at work as a railway porter. The pain was colicky, and was situated in the region of the umbilicus; the attacks of colic lasted a few minutes and recurred every few minutes. The passage of blood coincided with the onset of the colic. While in the ward he passed several ounces of dark-red blood. There was no vomiting. He gave a history of three previous vague attacks of "stomach-ache" associated with constipation during the past year. Each attack lasted about one week. He had no previous melaena.

On examination the tongue was furred. The abdomen showed slight generalized tenderness and rigidity, but no mass could be felt. Rectal examination revealed the presence of blood, without any other abnormality. A pre-operative diagnosis of intussusception was made, and operation was proceeded with immediately.

Operation.—A right mid-abdominal split-rectus incision was made under open ether anaesthesia. There was no evidence of intussusception. The whole of the large bowel and some coils of the small bowel were distended with blood. On further search a Meckel's diverticulum was found on the antimesenteric border of the small bowel, 2½ ft. from the ileo-caecal valve. The diverticulum and the