

Electricity.—Of all the means at our disposal the use of electricity is the most powerful in restoring normal nutritive conditions to the skin. This object is accomplished by its action upon the capillary circulation and the terminal fibers of the trophic and vasomotor nerves, its quickening influence upon the lymphatic vessels, and its effects upon the cutaneous glands. In severe cases of pigmentation it is my custom to combine the three beneficial agencies which I have mentioned. I employ at different times and in different conditions static electricity, galvanism and faradism. It is often of most service to alternate the galvanic and faradic currents, thus obtaining the most potent effects of the electric force.

In freckles and chloasma the application of the electric current in the manner indicated is followed by marked improvement. In chloasma it is equally necessary to give attention at the same time to any visceral disorders which may exist. The electricity acts both as a local and systemic tonic. In connection with, or in consequence of, its tonic effect, the electric current has an excellent alterative action, and this extends to the pigmentary as well as to the other functions of the skin.

There is a large class of persons who object strongly to every operative procedure involving the use of the knife. To these the application of the galvanocautery is far less alarming, and many will consent to its use in cases of nevus pigmentosus who will not permit excision. The method is certainly effective.

In conclusion, I can express my gratification at the results which for many years past I have been able to obtain by the systematic employment of electricity in all cases of pigmentary disturbances not dependent upon lesions so grave and deeply seated that they are, from their nature, not amenable to any form or method of treatment.

MOLLUSCUM CONTAGIOSUM.

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

BY WM. FRICK, A.M., M.D.

Lecturer on Dermatology in the Kansas City Medical College, and the Kansas City Training School for Nurses; Dermatologist to Kansas City, Fort Scott, & Memphis R. R.
KANSAS CITY, MO.

The titles "molluscum contagiosum," "molluscum verrucosum," "molluscum epitheliale," "epithelioma contagiosum" and "acne varioliform," have all been used to designate the same disease. Bateman, in his description of it, in 1817, used the first of these titles, and after long years of discussion and application of other titles, we seem to be coming back to a general use of the same. Especially do I think this is the better name to use since the work of Dr. Henry W. Stelwagon in proof of the contagiousness of the disease. In a paper read at the eighteenth annual meeting of the American Dermatological Association,¹ he cites about 375 cases reported by thirty-nine different authors showing contagiousness.

These cases reported by so many observers were scattered through seventy-seven years of time—from Bateman's cases in 1817 to Brocq's accidental inoculation of himself in 1894. While, from this weight of evidence, we must concede the contagious character of the disease, the evidence by the same observers would prove that the contagion is of a very feeble character.

The inoculation experiments were not often successful. The special soil necessary to the propagation of the contagion is evidently not easily obtained under ordinary conditions of life. The larger number of cases were reported in schools, asylums, or hospitals for children, where conditions of soil, together with intimate association of children with each other evidently produce a favorable condition for development of the disease. Other cases where children of the same family contracted the disease from each other or where the mother, while nursing a baby with molluscum tumors on its face, developed some of the same tumors on her breast, show what intimate association may do, in spreading the disease. We are not surprised to find a case of this disease passing through its entire course without any one else contracting the disease, and would not conclude that this lessens the evidence of contagiousness already cited.

Very much the larger number of cases reported have been in children. The number of lesions in any case is commonly spoken of as "a few," ten to twenty being generally about the number. The location of the lesions seems to be principally about the face, neck and hands, sometimes in other parts of the body.

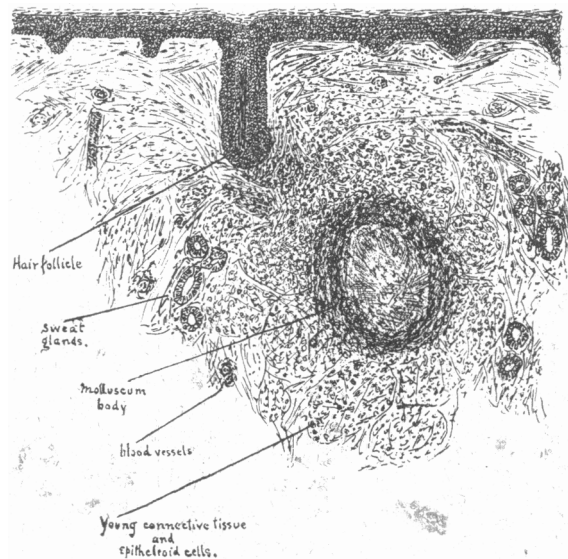


Fig. 1.

In the case I wish to report, it seems to me three things are noteworthy: 1, the patient is an adult male; 2, the lesions were very numerous—exceeding 400; 3, no source of contagion could be ascertained, nor did any one contract the disease from him so far as could be known. The number of cases in adult males is small. I thought at first that in the number of lesions this case broke the record, but find, after looking up the literature on the subject, that this is not the case. Kaposi reports² that he has removed from children 80 to 100 and over; and also that he had removed 135 of these lesions from the penis, scrotum and inner part of the thigh of a man. Ebert reports³ a case in a 14-year-old girl, of 108 in the face. Prince A. Morrow reports⁴ a case where over 300 of these growths were removed from the body of a patient. R. W. Taylor, in a lecture delivered to the New York Post Graduate Medical School,⁵ says he has the photograph of a child

² Vierteljahrsschrift für Dermatologie und Syphilis, 1877, p. 334.

³ Archives für Dermatologie und Syphilis, 1879, p. 86.

⁴ Journal of Cutaneous and Genito-Urinary Diseases, 1895, p. 75.

⁵ Medical News, March 15, 1890.

¹ Journal of Cutaneous and Genito-Urinary Diseases, February, 1895.

on whom were between two and three thousand of these little growths. Madrzejewski⁶ reports a case of more than three thousand of the little tumors, varying in size from a pea to a child's head.

Case 1.—The patient is a man 38 years of age, married, but has no children, an American, and by occupation a locomotive fireman, on the Kansas City, Fort Scott & Memphis R.R.

His mother died of pneumonia at the age of 52 years, having been previously healthy; one brother died at the age of 6 years; his father, one brother and three sisters are living and all in good health, no history of any hereditary disease is known to him. No skin disease of any kind exists in the patient's family as far as known.

The patient is fairly well nourished in appearance, is six feet in height and weighs 150 pounds. He has never had any severe illness, has considered himself perfectly healthy all his life, except for a psoriasis on his legs below the knees; this he has had since 12 years of age and several times there has been an extension over his whole body, but in a light form, and it never gave him any trouble. In the early part of November, 1896, he had concluded that he needed some "blood medicine" and took some patent sarsaparilla preparation. In a few days a number of papules appeared around the mouth, on the lips and chin. This eruption, he thought, was caused by the medicine, so he ceased taking it. The eruption continued to increase in the number of lesions, gradually extending over the face, up over the forehead into the hair of the head, on the ears, eyelids, eyebrows, down on the neck, and later on, two or three appeared on the hand.

I first saw the case late in December, 1896. At that time the lesions covered all these parts mentioned, except those on the hand, which appeared during the course of treatment. At that time they ranged in size from a pinhead to a good-sized pea.

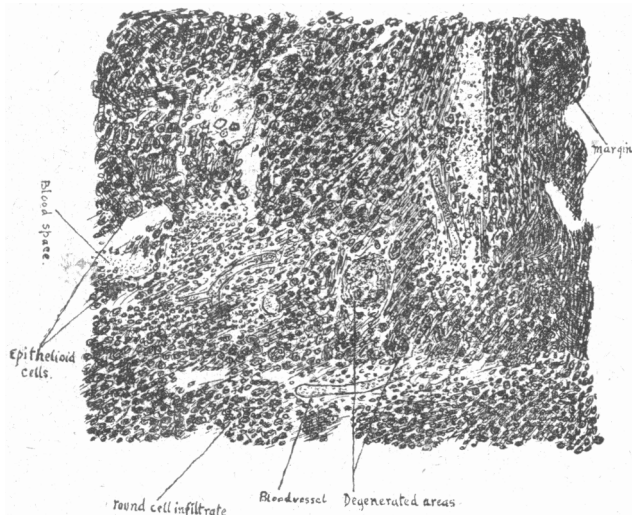


Fig. 2.

Later a few grew to be much larger, and one grew to be three-fourths of an inch in diameter. They were thickly distributed over the surface, but generally discrete; at a few points they were so close together as to form apparently one tumor with the contents of three or four. None of them were pedunculated, some were very slightly elevated, most of them were rather whiter than the normal skin, and many were slightly umbilicated, giving somewhat the appearance in contour of an urticaria lesion. Some lesions were reddened from inflammation. These were generally more elevated than the others and contained some pus in addition to the molluscum material. The contents of a few lesions could be squeezed out with the thumb-nails, but they were situated deep in the skin, and generally required a slight incision before they could be extruded. The contents of a tumor came out as an ovoid, semi-transparent, slightly yellowish body with a sharp point at one end. The consistence was that of a thick jelly, and upon exposure to the atmosphere for a few hours, they almost completely dried away. The molluscum material generally held well together in a body, and if pus existed along with it, the two materials could be well distinguished and the pus could be washed away, leaving the other intact. In some few of the older tumors the contents

was broken up; it was not like sebaceous material, for that is opaque and white.

After pressing out the contents of a tumor a very distinct cavity could be felt with a probe. Bleeding was quite free, lasting several hours after expression of tumors. In treating the case at first, we simply removed the contents of the tumors and used local antiseptics to the surface of the skin, but the tumors soon formed again. Then after removing contents we applied pure carbolic acid to the cavities. After this they slowly disappeared, leaving superficial scars for a time. More than 400 of these tumors have been destroyed in this way; a large number of scars are still on the face, but are gradually fading.

There is still an occasional molluscum tumor to be found and destroyed, but very few. On the chin were six or eight tumors, more like ordinary warts, from which no contents could be removed without cutting out the entire tumor. These disappeared during the course of treatment, and I have thought they were nothing but warts and had only an accidental connection with the tumors.

Dr. James J. Clausen has been kind enough to microscopically examine the expressed contents of some of the tumors and also a dissected tumor, with the idea of ascertaining the anatomic position of the tumors and the pathology of its contents. His report follows:

Pathologic anatomy.—Microscopic sections were made from several lesions removed, representing two widely different stages of the disease:

1. An early lesion of very small size, subcutaneous; the skin overlying, apparently intact and smooth, was excised. Unfortunately, in cutting this little specimen the molluscum body with its surroundings tore loose from the overlying skin; but judging from comparison of numerous sections cut at different levels, the accompanying drawing (Fig. 1) gives the most constant relation of the small molluscum body to the skin and its appendages. The molluscum body itself is degenerated to the extent that no cells or nuclei can be outlined. The outer part takes a deeper stain than the center. Immediately surrounding the body and merging into it are many oval or circular areas of partially degenerated young connective tissue. Some of the connective tissue cells are larger, resembling very much the so-called epithelioid cells found in tuberculous inflammation. The molluscum body is nowhere found directly continuous with the epithelium, neither of hair follicle, skin nor sweat-glands.

2. Microscopic sections were also made from older and larger lesions which were loosened by a suppurating process around them so they could be expressed. Fig. 2 represents a small portion of such a molluscum body. It is characterized by a general round-cell infiltration; vascularization has partially taken place in the interior thereof, being traversed with new capillaries and apparently also irregular blood-spaces. At the margins are found homogeneous, almost structureless areas, while a few degenerated masses, the size of giant cells, containing very few or no nuclei, are seen scattered through the lesion. Interspersed here and there between the round cells are a few larger cells with plain nuclei, but partially degenerated cell bodies, also resembling epithelioid cells. In general it is the picture of chronic inflammation in connective tissue, the degenerated masses being constantly found farthest removed from the circulation.

As the clinical behavior of this case has been that of a perfectly typical molluscum contagiosum, I much regret that I have not had the opportunity to make a bacteriologic investigation. I should likewise like to examine repeatedly excised complete lesions with their true relation carefully preserved, in the various intermediate stages of the disease. The microscopic findings so far have made me at least suspect that the above disease may not be an epithelial new growth; but a chronic inflammation due to infection, entering the body through the appendages of the skin.

I am very sorry we did not have the opportunity to begin microscopic investigation earlier, as then better results might have obtained. The specimens examined were typical ones, however, and only needed a larger number to be more conclusive.

The patient's general health remained good. His psoriasis continued as usual, not being modified at all by the disease or its treatment. Internal treatment was confined to simple forms of tonics. Patient could

⁶ Medical News, Sept. 22, 1885, p. 314.

not recall coming in contact with any one who was similarly afflicted, and up to date no other person has contracted the disease from him. He is a man of good habits and cleanly about his person. This probably accounts for no further spread of the disease.

One thing observed about this patient was the apparently coarse texture of the skin. I mean by that the openness of the pores, which possibly may have given a favorable opportunity for the entrance of the contagion.

From the study of this case and the reports of others I would draw these conclusions:

1. The disease is contagious, but very feebly so.
2. The anatomic character of the tumor is not satisfactorily known, being generally considered an epithelial growth, the origin of which is in dispute; while some regard it as an inflammatory connective tissue proliferation in which early degenerative changes take place.
3. To remove the disease effectually it is necessary to destroy the contents of the tumors completely.

Room 301, Rialto Building.

CONVENIENT FIRST DRESSINGS IN LEG FRACTURES.

Read before the Fifth Annual Meeting of the American Academy of Railway Surgeons, held at Chicago, Oct. 5, 6 and 7, 1898.

BY EDWARD H. TRICKLE, M.D.

SURGEON T. & O. C. EXT. R. R. CO.
CUTLER, OHIO.

While my surgical experience only dates back thirty years, my observation of the management of leg fractures extends over half a century. When but a boy of 10 years of age, my brother had his leg broken below the knee while wrestling. The village doctor was called. He inspected the leg and sent me to bring him seven yards of calico. He tore off one strip for a bandage, split a shingle in two or three pieces, laid them around the leg, rolled his calico bandage around the sticks and directed the family to keep it wet with cold water. With every movement of the body my brother would howl with pain. After a long time he got around with crutches and finally walked, but his leg was badly crooked. Fortunately, a few years later he sustained another fracture of the same leg, and the surgeon in attendance kept it upon a patent posterior wooden splint and straightened it out. Since that time I have never taken kindly to splints, bandages or fracture-boxes.

It may be supposed that at this late day the old custom of splitting shingles or yanking palings off the fence to use as splints for fractures is obsolete, but less than ten years ago I was called in consultation to see a fracture case, and found the leg held in line by broken sticks, the splintered ends of which projected beyond the bandage at the foot and knee. It was hot weather, and the leg thus dressed had for three weeks been kept in soak, so that the stench was intolerable, while maggots were disporting themselves in the old bits of quilt or comfort packed around the leg in the box. There was no union. I cleaned up the leg, put a firm plaster case around it and told the man to get up and walk on it. He did so, and in time thus brought about consolidation. There can be no possible excuse for such poverty of resource or such criminal neglect of the simplest rules of hygiene.

We now find upon the market a great variety of

fracture appliances: coaptation splints that fit the normal contour of the leg—posterior, anterior or lateral, as we may wish. All of them are useful in their way; some of them quite ornamental. We appreciate them, but it is our right and duty to improve on them if not entirely satisfactory. My objection to any splint is that it requires a bandage to hold it coapted to the leg. A fractured leg, if dressed immediately, will always swell more or less, and this subjects us to another call for the purpose of removing and reapplying the bandage. If this occurs and we fail in attention, the patient suffers, and irreparable damage may result. Splints and bandages are for this reason unsatisfactory, and I have discarded them, and have gone—not back to the old fracture-box—but forward to the newer conception of one that fits the leg like a stocking, and floats suspended a few inches above the bed instead of resting upon it.

How is this fracture-box made and of what material? It can be made over the leg at the time of the first dressing, as follows: After the leg is properly cleansed and rendered aseptic, it is enveloped in surgeon's cotton and suspended in cheese-cloth, which adapts itself to the lower and lateral contour of the leg. Two strips of half-inch poplar board, shaped to fit the anterior contour, are clamped in against the sides of the muslin until they meet, thus closing the cloth around the leg like a stocking. The clamps resting on the instep, along the shin and in over the knee, are fastened together by bolts. Extension is made and maintained while plaster of Paris is applied sufficient to make a firm case. This may be done by passing the plaster bandage in roller form back and forth along the leg, or by strips of muslin saturated with the plaster cream laid on and smoothed down with the hand until the requisite thickness is obtained. It sets in ten or fifteen minutes, during which time extension must be maintained. The clamps are then removed, the muslin trimmed at the top and about two inches of it turned outward and downward over the sides of the case. The leg thus cased is again suspended in cheese-cloth and clamped in at the top to maintain its coaptation to the leg until it is convenient to lace it with rubber cord, as you see in the sample before you.

The dressing thus applied is perfectly conformed to the leg, is open at the top, can be drawn apart for inspection, and when suspended moves when the body moves, causing no disturbance at the seat of fracture; yields sufficiently to accommodate swelling, and its alignment is maintained by the clamp, even though the case be light and fragile. I can not claim for this manner of "first dressing" any advantage over the ordinary apparatus in the way of convenience, but we avoid the later inconvenience of having to go back and readjust the bandages on account of swelling.

I now invite your attention to a "Normal Contour Fracture-Box" made of different material. It can not be made over the broken leg, but is molded over a plaster cast of the human leg. It is composed of screen-wire, cheese-cloth and a combination of adhesives which fill the meshes of the cloth and wire, and when dried make a hard, firm case, which retains the form into which it is molded, but is so pliant as to permit of being drawn apart for the reception or removal of the leg at our pleasure. A set or two of these prepared cases—rights and lefts—are, like Mrs. Toodle's coffin, "handy things to have about the house," and when we are called to a case of fracture, all we have to do is to police the leg, lay it in the