always present. The tubes and ovaries can be palpated only in the early stages. In the latter period they ride above the mass.

There is another form of parametrial infection. An uneventful puerperal may exist with the exception of slight discomfort and chilliness and a bare rise in temperature. It is wise to watch these cases carefully. Usually we are dealing with retained secundines, or the patient has received improper care. At any rate, she has an infection, and local resistance is retarding the typical signs of broad ligament disease.

In the meantime, however, slowly, insidiously, and definitely, a marked induration has formed in the broad ligament which at the end of three weeks can be felt encircling the uterine neck, toward the pelvic brim, and in the hollow of the sacrum. If a cervical laceration exists, it begins from the tear and extends to the side. The uterus may be displaced in any direction and the exudate may completely encircle the rectum, or be diffused to one side. The sacrouterine ligaments are thickened or shrunk and tense. The final manifestations may be psoas muscle adhesions, producing lower spinal deformity, painful walking, and marked neuralgias from involvement of the hypogastric and ganglion of Frankenhauser in the form of severe psychiatric, crural, and pelvic distress. These patients present marked organic change in the form of chronic metritis, fibrosis, or atrophy and have frequent recurrence of spontaneous abortion or premature birth.

Next in frequency during pregnancy, abortion, or the puerperal state is pelvic peritonitis or parametritis, brought about in the majority of instances from postpuerperal douches, washes, dirty instruments, or plastic operations. From a prognostic standpoint this is more serious because it may rapidly spread to general peritonitis. The condition arises from the tubes, the infection having reached them from the uterus. The resulting peritoneal extension is not controlled by the bacteria which have caused it, but by the amount of peritoneal response arising from virulence, resistance, and exudative propensity of its serous coat which controls the formation of the parametritic mass and adhesions. If the serous outpouring is rapid, the adhesions cannot form because the lymph change does not take place, a rapidly filling cul-de-sac will soon present itself. On the other hand, if the abdominal opening of the tube closes up during the process of the reaction, the tube either ruptures, filling the cul-de-sac with pus, or it does not rupture, and following its normal direction outward, upward, backward, and downward, the tube falls behind the posterior peritoneal sheath, becoming adherent, the fimbria attaching themselves even down into and upon the floor of Douglas's pouch.

Parametritis manifests itself either as a serous or a purulent cul-de-sac exudate, or an adherent annexal mass, adherent to all adjacent and surrounding tissues. Wherever the infected tissue comes in contact, serous and finally fibrinous adhesion takes place. The onset is stormy and the chill pronounced. The fever is continuous and high, and there is a corresponding pulse. Pain is not constant nor continuous, as in parametritis, and it is not localized to one side.

Abdominal tenderness is more pronounced than vaginal. Meteorism and tympanitis usually occur, and nausea and vomiting are frequently present. Dry, heavily coated tongue and lips finish the picture of marked peritoneal irritation. Exudate formation varies, and involves only the cul-de-sac; it is never lateral, and is always behind the uterus, bulging into the posterior vaginal vault like a large egg. It increases downward, and the tubes and ovaries can always be palpated unless an extensive exudate is present. The uterus is pushed forward in anteflexion against the pubes, while in parametritis the displacement is forward and to the side. Parametritic exudate always begins at the lateral edge of the uterus and spreads over to the pelvic wall. Perimetric exudate is always behind the uterus. The parametritic mass is fixed, while the cul-de-sac mass is movable. The former is hard and has an indurated feel, while the latter is soft and doughy. The posterior vaginal wall is thickened from cul-de-sac extension, and the exudate may burrow between the posterior vaginal and the anterior wall of the rectum; this will never happen in parametritis.

TREATMENT.

In the treatment of puerperal infection or septic abortion, the first point to consider is the presence of severe bleeding. It makes no difference whether fever is present or not; every case of severe bleeding calls for immediate and rapid interference. This is accomplished by careful digital curettage in the presence of fever, and combined digital and instrumental otherwise. The danger of hemorrhage overshadows that of infective extension.

It is always advisable to deal carefully with the curette. We never use a sharp curette—a dull, spoon shaped instrument is much better. The use of the curette in every pelvic infection is dangerous in inexperienced hands. Histories carefully tabulated show that a large percentage of severe septic explosions and a high mortality are directly traceable to its use in the early stages of these conditions.

It is poor surgery to enter the puerperal or aborted uterus, either digitally or with instruments, upon the mere suspicion of retained placenta and the presence of fever. I am strongly opposed to curettage the puerperal uterus unless the patient is bleeding or we are dealing with a suppurative condition and that this is something in the uterus. First we try to establish these two points before interfering.

Sapremia always manifests itself with a marked odor, and placental tissue can always be felt upon exploration. When the temperature rises in these cases we are dealing with either septic endometritis, metritis, parametritis, or perimetritis. We must establish a definite diagnosis before doing anything radical, such as curettage. If the bacterial activity and extension are confined to the endometrium (which is rare), natural resistance has its hands full looking after the phagocytic and reactive formation. Is it fair to break down nature's work, open new areas of infection, destroy resisting ones, and stimulate septic absorption? The first principle in reactive inflammation is rest. Why should we disturb it with curette or digital destruction, thereby breaking up thrombophlebitic or lymphangiatic plugs for
further extension? On the other hand, is it not apparent that a curette will never reach the site of a metritis, parametritis, or perimetritis?

In every case of pelvic infection, it is not a question of retained placenta or secundines, but only and specifically a knowledge and consideration of the true variety and virulence of the bacteria causing the infection. To the general practitioner this is one of the most difficult problems. In hospital practice, better facilities are offered for frequent blood cultures, taking from twelve to twenty-four or forty-eight hours to develop. In the meantime, discouraging symptoms may compel interference.

Theoretical ideals classify interesting scientific principles, but they very often lead to unhappy results. The blood will give the resistance and antibody index, but will it always give the virulence of the aerobic leucocyte streptococcus we are dealing with? While we are waiting for the pathologist, the patient may die.

Winter, Walther, Voit, Shotmüller, and others have shown us that if bacilli coli communis or streptococcic bacteria are present it is safe to curette, but if the hemolytic streptococcus is present, we treat the cases expectantly, depending upon spontaneous placental expulsion, or later removal after bacterial virulence has abated.

I believe the matter is not a question of curettage as much as it is a question of drainage and, further, that the eye experienced in clinical signs tells more, and tells it more quickly than waiting for the microscope. The old theory that sapremia is always a local condition, while septicemia is a general one, has been exploded by Shotmüller, who has shown the streptococcus existing in each. Putrefactive and virulent hemolytic bacteria can exist together. If curettage brings the temperature down, virulent bacteria are absent and we are dealing with a toxemia; if it does not, they are present. Curettage, then, adds to their activity.

There are three cardinal points in treatment: 1, local; 2, drainage; and, 3, constitutional. It is better to utilize the three, and be on the safe side, than to adopt one and fail.

Infection in the pelvis is the same as infection in any other part of the body. An abscess may become circumscribed and walled off, throwing off its septic débris; or the virulent bacteria may overcome the wall of resistance, break through, and extend. The treatment in the former is locally operative by incision and drainage, but in the latter by further incisions and counter-drainage high above and along the site of original infection. In pelvic infection we have a local, adjacent, or general condition. If a foul smelling discharge is present we are dealing with saprophytic destruction, and the early indication for curettage exists. If, however, there is the slightest tenderness in the broad ligament, with or without an exudate, and the uterus is tender, we are dealing with a metritis or parametritis, and the treatment must go directly to and beyond the original site of infection.

The main exit of pelvic drainage is in the form of iodoform gauze strips placed fan-like through the cul-de-sac up to the infundibulopelvic and posterior layer of the broad ligament.

In the very early stages this is sufficient, but in the presence of an exudate, or abscess, we must also break into the broad ligament, and put into this space an extra iodoform gauze drain beside the others. We do not wait until an abscess forms, but drain as soon as the diagnosis is established.

We never curette a uterus unless we have a foul smelling discharge, and even then we supplement the treatment with pelvic drainage. What evidence have we that there are no virulent bacteria present? Pelvic drainage is the forerunner of prevention, and is harmless in its application.

In perimetritis or cul-de-sac mass, drainage speaks. We explore the uterus with a uterine spoon scoop or our gloved finger, and if we find the uterus empty, we get out quickly. We depend entirely upon the pelvic drainage. We push streptococcic serum of the strongest polyvalent variety (twenty million), administered every three hours if necessary. We stimulate freely. High Fowler's position, Murphy drip, saline hypodermoclysis, active diuresis, catharsis, and diaphoresis help the patient more readily to eliminate and throw off septic material.

In perimetritis or cul-de-sac mass, drainage speaks for itself, and curettage is positively contraindicated until a later date.

In conclusion, I will say that a correct diagnosis of pelvic infection is the first essential. We do not treat the term as a disease but as a localized condition divided as to classification. In sapremia we curette and drain the pelvis; in septicemia or parametritis, we explore the uterus and drain the pelvis. We never curette when the broad ligament or annexa are involved.

In following these few simple rules as a principle, and making a careful, correct diagnosis, with timely and early treatment, we shall, in the majority of instances, bring about happy results and complete recovery in seemingly hopeless cases.

218 West Seventy-first Street.

HEMIPLEGIA.*

Its Prophylaxis and Treatment,

BY WILLIAM MARTIN, M. D.,

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The successful treatment of any condition means primarily the removal of the cause, but far better than cure is the prevention of disease. The present day prevalence of apoplexy, some cases quickly fatal, and others resulting in years of invalidism, makes this one of the real issues to be met by the medical profession. It is not only our duty to relieve the sufferings of those already afflicted, but we should do our best to point out means of prevention. When it is fully realized that many attacks can be prevented, there will be a better appreciation of the responsibilities that we should feel to be ours.

The purpose of this paper is to consider the sub-

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ject of hemiplegia from the standpoint of prevention, as well as to take up the line of treatment of the secondary stage, or the so called chronic form. This is to be from the physiotherapeutic side, omit-
ting drug therapy entirely, as drugs have been found inefficient in these cases.

The consideration of a subject of such vast importance will warrant a brief review of the etiology, symptomatology, and pathology of hemiplegia. No type of cases other than those of hemorrhage will be considered.

Hemiplegia is complete when the face, arm, and leg are all involved, and incomplete when only one or two parts are affected. The damage done by the hemorrhage depends upon the site of its occurrence. It may be in the motor cortex, it may affect the pyramidal fibres in the corona radiata and internal capsule, the cerebral peduncle, or the pons varolii. The facial effects are upon the same side as are those of the arm and leg, owing to the fact that the facial muscles stand in the same relation to the cortical centres, as do those of the arm and leg. This paralysis is partial, owing to an involvement of the lower portion of the nerve, but is usually well marked in character. It may involve the orbicu-
laris oris in a slight way, and be perceptible only during emotion and excitement. When protruded, the tongue is deviated toward the affected side, which is due to the involvement of the hypoglossal nerve, and the lack of involvement and opposition of the geniohyoglossus of the sound side. With a right sided hemiplegia there may be aphasia, and when this is not present, there is usually a slowness and, at times, a difficulty of speech. As a rule the arm is most involved, but cases vary in this respect. The muscles of the thorax and abdomen always escape. This is explained by Broadbent by "sus-
posing that as the spinal nuclei controlling these movements on both sides, constantly act together, they may, by means of their intimate connection, be stimulated by impulses coming from only one side of the brain." Sensory disturbances are variable. There may be hemianesthesia, but often there is only a numbness or slight impairment of sensation. When there is loss of sensation or sensory power, it is from a lesion in the retrolenticular portion of the posterior limb. Total anesthesia, according to Dana, is either functional or of subcortical origin, and is less common in hemorrhage than in softening.

Disturbances of the special senses are not constant, yet there are cases where there is some diminu-
tion of the sense of smell as well as of the taste and hearing. Gower thinks that homonymous hemianopsia of the halves of the visual field is of frequent occurrence, but often overlooked. In some cases under the writer's care there has been great impairment of vision, but it has not been defi-
nitely shown in each case to be the result of the hemiplegia.

In the second stage there is usually a return of the reflexes which were abolished during the active stage. The deep reflexes are increased, and there may be ankle clonus. The plantar and other superficial reflexes are usually lessened, and as a rule the spincters are not involved. If, at the end of two or three months, there has been no gradual restora-
tion of function, the paralyzed parts undergo certain changes. The leg may recover some power, but the foot drags. Secondary contractures or late rigidity appear, together with an exaggeration of the old symptoms, and these may be without further hemorrhage. The arm is usually more involved in these changes, and the rigidity may affect the elbow, wrist, and fingers, more than the shoulders. In some cases under the writer's care, the shoulder and fingers were most involved.

It has been stated that the leg contractures are not so painful as are those of the arm. In my ex-
perience the reverse has been true. Whether these patients have been suffering from contractures alone or with an associated neuritis, it has been hard to determine, particularly in cases where there has been no previous history of neuritis. In all there has been the usual favorable response to the treatment that would be applied to a neuritis.

The loss of power usually affects the muscles of the foot in a particular manner, and with the knee flexed in the effort to walk, there occurs the characteristic half circle swing of the foot. Late in the second stage, there may be some muscular atrophy, as well as other features that are not constant, such as tremor, atethosis, arthropathies of the affected side, and postparaplegic chorea (Osler).

Consideration of the etiology of cerebral hemorrhage brings us to the study of the conditions that apply to the cardiovascular system. As prophylactic measures suggest themselves by this study, they may as well be considered together.

The vessel changes that are the result of a persistent hypertension, frequently developing into arteriosclerosis, are potent etiological factors. As a primary cause of these changes we have various forms of poisons, intestinal toxemias from dietetic errors, and overeating, therefore care in eating as well as in diet itself, offers one measure toward prophylaxis. Meat proteins in excess appear at present to be held responsible largely for these toxemias, and with poor elimination, a growing hyper-
tension becomes apparent, which if noticed early will be of little account, as it can be readily handled by ordinary measures. Exclusion of meats, using milk as a substitute, and allowing the vegetable pro-
teins, together with other suitable food products, will do much to prevent an extension of the condi-
tion. As excessive eating is recognized as a factor, patients should be warned against it. These simple measures may prevent simple hypertension from progressing, but when not successful, more radical measures must be resorted to. Elimination must be kept free, and if constipation is pronounced, physical measures must be resorted to, as well as the use of mineral oil, agaragar, and occasional doses of castor oil. Colonie flushings may often be of benefit, preferably using the normal saline solu-
tion, and in quantity that will not overstretch and paralyze the bowel. Vibration over the course of the colon, and over the spinal centres that govern the abdominal organs, often acts efficiently. In ad-
dition, the sinusoidal current to these nerve centres is valuable, as by this method there is not only nerve stimulation, but increased peristalsis and secre-
tions. Reducing the waste products by these
methods will counteract the morbid process which affects the depressor nerve, causing "constriction of the arterioles through which the anterior pituitary and the thyroid apparatus are supplied with blood," according to Sajous, who further states that "the supply of adrenocid (besides thyroidase) being diminished, the metabolic activity in the vascular walls is reduced, and the chief pathogenic process is thus controlled."

Massage may be used as an adjunct in suitable cases, bearing in mind that it acts in a manner similar to exercise, therefore in cases of high blood pressure it must be used with caution, if at all.

In all cases the frequent use of the sphygmomanometer is of great importance. Not only should the systolic pressure be taken, as is the rule, but the diastolic also, by which means that pulse pressure can be estimated. According to present day thought, the diastolic is the important one, if one only is to be considered, but in the writer's estimation it is best to take all, by which can be obtained the best information of the condition of the whole cardiovascular system. Leading the simple life, taking the proper amount of exercise and rest, all tend toward restoring cardiovascular tone. It is by such prophylactic measures that degenerative changes may be prevented. Here is where the family physician plays an important part, and if he meets the situation, he can be in position to save many a life.

So much for prophylaxis. In considering the treatment of hemiplegia from the purely physio-therapeutic standpoint, we must depart from the customary paths that have been well trodden for so many generations, and as this savors of the unorthodox, many may pass it by without investigation. As the measures that will be considered later have been well tested, they will be mentioned with the hope of their receiving favorable consideration.

In treating hemorrhagic hemiplegia we must bear in mind that the outcome depends largely upon the time that has elapsed since the onset, as well as the severity of the attack, and the personal idiosyncrasies of each case. Prognosis should always be guarded, as responses to treatment vary.

The first consideration is that of hypertension. Following the attack it is lessened, but when the patient applies for treatment in the secondary stage it has often risen to a dangerous point, and needs urgent attention to prevent recurrence. In some cases we find a condition of broken compensation, which means disaster.

To reduce the hypertension, we use the method of autocondensation. This is given from a high frequency apparatus that will deliver a d'Arsonval current. The couch upon which the patient lies has a cushion three inches thick made of floss or hair, under which is a metal plate of the same length and width, connected with one side of the apparatus. Reclining upon this couch, the patient grasps a metal handle which is connected with the other side of the apparatus, completing the circuit. The current is given in suitable amperage according to the needs of the case. It is rarely necessary to give over 650 m. a. of current, and often better results are obtained from a much smaller amperage, for instance, 350 m. a. The treatments last from twelve to fifteen minutes, and should be given daily, until the reduction reaches a point that is approximately the compensatory pressure. While it is impossible to determine this point definitely, it may be considered to have been reached when the circulation is at its best, and the patients feel best. This can be readily seen, as the mentality improves and various sensations disappear that have been disturbing to the patient, such as dyspnea, etc.

The effect of autocondensation is explained by de Kraft as follows: The warming effect of this current is different from that obtained by any other method. It occurs from within the body, not from without, and all of the cells participate. As a result of the heating of the blood and muscles, the entire heat regulating apparatus of the body is exercised, owing probably to direct stimulation of the sympathetic system. The blood is rushed to the surface, and the venous congestion is relieved. Splanchnic anemia ensues and visceral engorgements are relieved. The blood stream, returning to normal channels, carries a fresh supply of oxygenated blood to the various diseased parts, and as well all over the system. This equals the circulation and relieves the high pressure. The effect of this reduction of the cardiovascular load is at times wonderful, particularly upon the mental state of the patient. Cheerfulness and hopefulness replace dullness and melancholy, alone sufficient warrant for such treatment, contributing much toward a favorable outcome.

In addition to autocondensation we have mechanical vibration as a supplementary measure for reduction of the pressure. This is usually applied to the second and third dorsal interspaces for a period of five minutes at each treatment. This inhibits the functional activity of the vasomotor centre, permitting the blood vessels to dilate. According to Foster, "blood pressure may be made to rise and fall by afferent impulses passing along nerves other than the depressor. The effect of the afferent nerve stimulation is similar to that caused by stimulation of the depressor."

If there is cardiac insufficiency, the vibration should be given also in the interspaces of the seventh cervical and first dorsal vertebrae. According to Dr. Arnold Snow, probably acts through the pneumogastric nerve filaments of the rami commissantes which connect the sympathetic with the second and third dorsal nerves.

For restoration, as far as possible, of the muscle and nerve tone, we have the use of the slow surging sinusoidal and the interrupted constant currents. With these there are other modalities of value, but the two mentioned are perhaps the most used. The sinusoidal currents are of the smooth type, producing no painful responses, yet their action is most profound and energetic.

Its application is made by the use of well soaked pads of felt or cotton over metal, the larger or indifferent one being placed over the spine, the area chosen according to the part to be treated. If this is the arm, then the pad is applied to the lower cervical area, and if the leg, then to the dorsal portion. The smaller pad usually has a handle, and is applied in a labile manner to the motor points and muscles wherever needed. Treatments last about twenty minutes. For superficial effects the rapid sinusoidal
current is considered of value. Some forms of apparatus give a combination of the two currents, the rapid superimposed upon the slow, and this is said to have a decided effect upon restoration of the nerve cell tone.

If preferred, with the sinusoidal currents, there may be used alternatingly the interrupted galvanic. This latter has been for years the one preferred, but as it causes painful contractions, it is not so well borne by the patient, and this is soon made known to the operator.

For relief of spasmic pains of the neuritic type so often seen late in the secondary stage, the static wave current offers the best means in a large percentage of cases. This is applied by means of a flexible metal plate about two and one half by six inches in size, wet, placed on the bare skin, attached to the positive side of the machine by a conducting cord or wire, with the negative side grounded. The amount is regulated by the separation of the discharging balls on the end of the sliding rods, the discharge of the current being interrupted at the rate of from 120 to 300 times a minute. Fifteen to twenty minutes is sufficiently long for each treatment, as it is not desirable to fatigue the patient.

This fatigue would be the result of too strong and too great an amount of muscular contraction, which acts in the same manner as so much exercise. The amount of pain caused by the treatment of the sore nerves will be another factor toward fatigue, therefore it is the better part of wisdom to proceed with caution as to the doses. The current is distinctly sedative in effect, it relaxes muscular spasm, and at the same time has a distinct metabolic action, by causing cell gymnastics. This is mainly local, but it also has some general effect, as the current is not confined to the area under the plate.

The matter of removal of the hemorrhagic clot has given the profession much thought. This is illustrated by the use of the iodides during the long past. Some have used cerebral galvanization with some degree of success, but the writer cannot speak from experience in this matter. It appears to be the logical method, granting that the current can be made to go directly through the skull and brain. This has been questioned by some, who state that the current follows the path of least resistance, which would be around the skull, thus not meeting the demands of the case. This question remains to be solved.

By the outline given, it can be readily seen that the treatment of hemiplegia is largely symptomatic. The same holds true in drug therapy. Our present knowledge offers nothing better. After all, prophylaxis offers the best solution of the whole question, and it therefore behooves us all to be on the alert in the future, to teach our friends and patients the ways and means of guarding their lives so as to prevent this catastrophe.

Physiotherapy offers more than any other plan of treatment, when hemorrhage has actually occurred, if applied with common sense. It may fail signally, for after all, to use a modern phrase, “it is the man behind the gun” who counts more than any other factor.

Maryland and Pacific Avenues.

SECONDARY SYPHILITIC LESIONS OF THE TONGUE.*

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Secondary syphilitic manifestations on the tongue, although far less common here than on other mucous membranes, such as the lips, vulva, or anus, are not infrequently met. Those who have written on this subject are unanimous in this respect and in my own experience out of 617 patients with syphilis I found forty with lesions of the lingual mucosa. The mucous patch is unquestionably the most frequent, but, as I shall show, we may encounter the majority of the other elementary lesions which characterize the group of syphilides. Only, the seat of these lesions on an essentially motile organ, whose surface is unceasingly in contact with food, drink, and salva, brings about differences in their external aspects which are often very great. In the study of these lesions the strictest account should be taken of the special structure of the lingual mucosa. This is not the place to describe the mucous membrane of the tongue; I shall simply recall the development of the papillary layer, the intimate adhesion of the mucous tissue with the underlying muscular layer, and lastly, the thickness of the epithelium, which is the seat of a continual and abundant desquamation.

All writers on syphilis have described lingual mucous patches, but usually, under this vague denomination they have included nearly all the lesions which may occur on the tongue during the secondary period. Certain other forms, generally of later manifestation, such as tubercular and ulcerative syphilides, have been confounded with the manifestations of the tertiary period, namely, the gumma. However, we must point out that this distinction has been made in recent years, particularly by Rollet, Gubler, Buzenet, and Julliard.

The erythematous syphilide, so frequent on other mucosa, particularly that of the isthmus of the throat, the first symptom of generalization of the infection in many cases, is at least rarely seen on the tongue, and the only reference to it that I have been able to find is by Rollet, who says: “Mucous patches on the tongue are sometimes composed of simple erythematous spots, smooth, surrounded by normal mucosa with its more or less projecting papille. This projection of the papille causes the erythematous plaque to appear depressed.”

By what is expressed in this sentence it is seen that, in the mind of the author, this lesion enters into the group of mucous patches. Therefore, I shall not deal further with this syphilide, which I should not have mentioned, had it not been for the foregoing quotation, which drew my attention to the subject.

Of all the syphilides of the tongue, mucous patches are by far the most frequent, to such an extent, as I have already said, that some writers have comprised under this name all the secondary accidents. In my total of forty cases of lingual syphilis, thirty-five were mucous patches, eighteen being in males, fourteen in women, and one in a child with hereditary syphilis. Out of a total of

130 males presenting mucous patches, Basserlau found eighteen in whom the lesion was on the tongue, while Devasse and Deville noted six instances on the tongue out of a total of 186 females presenting this lesion.

It must not be inferred that this lesion is uncommon in children. The contrary is true, and the great frequency of mucous patches in the corners of the mouth, throat, and tongue in early life is known and explained as one of the ordinary ways of transmission of syphilis from nurse to infant, the breast being the seat of specific lesions.

The commonest site of lingual mucous patches is the dorsal aspect and borders of the tongue; they are often seated on the tip of the organ, less frequently on the inferior aspect. This difference in site also results in a difference in shape and aspect of the patches. Those seen most frequently have been described as opaline. On the top of the tongue it occurs as a slight elevation above a surrounding healthy mucosa, covered by a bluish white coating, almost transparent, in fact opaline, quite accurately likened to an area of mucous to which nitrate of silver has been applied.

The shape of the patch is regularly rounded or oval, and with the magnifying glass, under the epithelial and fibrinous layers which form a kind of false membrane, we may see the papille projecting more than in the normal state, in themselves forming the relief of the mucous patch, which is simply an advanced degree of the preceding state. The patch may project much more markedly, forming true vegetating plaques; however, we never meet the large cauliflower patches on the tongue, such as are seen on the vulva and anal borders.

Often in these cases the grayish pseudomembranous aspect has disappeared and is seen only on the borders of the lesion. On the other hand, we sometimes observe ulcerations which connect this form with the ulcerating type. The forms that we have described differ greatly from the primitive type of mucous patch, for I have not spoken of the circumscribed raised edges nor of the central depression found on other mucosa, particularly on the lips and inside of the cheeks. This, I infer, is due to the essentially papillary texture of the tongue. As to a fetid secretion, the tongue, being continually moving and incessantly covered with saliva, drink, and food, does not present this to such a pronounced degree as other parts of the body. However, it must be said that where there are lingual mucous patches the breath is always disagreeable.

Beside the projecting patches, the top of the tongue is the seat of more or less deep fissures, with callous, white, punched out borders, with a fundus often difficult to see, unless the borders are separated by the fingers, and which is either ulcerated or healthy in appearance. Hot drinks and food are taken with difficulty by the patient.

The ulcerating form remains to be described and is found more frequently on the borders of the tongue, particularly where there is a point of irritation, such as a decayed tooth, at the two extremities of a space left by an extracted tooth, and in smokers who always place the pipe stem in the same place. Here we find large and deep ulcerations with indurated and projecting borders, covered by the characteristic whitish pellicle of a mucous patch and with a red bottom which bleeds easily. More often it is filled with a whitish detritus that is found in nearly all buccal ulcerations and makes the diagnosis difficult.

Sometimes the edges of the tongue present actual festoons of mucous patches, with ulceration, or at least deep impressions, opposite each tooth.

There is still one more characteristic which separates mucous patches on the tongue from those on other parts of the body, due to the manner of development and duration of the lesion. The mucous patch is one of the very early manifestations of the secondary period. Occurring after the roseola and general lymphatic involvement, it is contemporary with the popular syphilide to which it is related; its study is full of interest. Like the latter, the mucous patch appears in untreated cases at about the third month of the infection, usually disappearing much later than the popular syphilide and prone to recur. As to mucous patches on the tongue, although they may occur at an early date of the infection, at the same time as the roseola, for example, they may well appear at a much later date, from eighteen months to two years, for example. They are also much more stubborn to ordinary treatment, 606 being sometimes the only drug to have any influence on them.

As in other regions, lingual mucous patches may be transformed into vegetations, although this rarely happens. I will simply mention the pseudomembranous plaques described by Martin under the name of syphilitic diphtheria. They are as infrequent on the tongue as they are common on the lips and vulva. In the order of succession of syphilides, we meet only three forms which on the tongue represent the group of late syphilides, namely, the tubercular syphilide, ulcerating syphilide, and one other form that I have not found described in the textbooks and which I will, for the time being, call intermediary late lesion.

Secondary tubercles on the tongue are not a common lesion, but if we go carefully over the records of cases published under the head of lingual gummata, we shall come to the conclusion that not a few of these are, in reality, simply tubercles. For this reason I shall here record in extenso a case recently under my observation.

CASE. E. Q., aged twenty-two years, entered hospital June 20th last. The patient had never been ill. Ten weeks earlier he had been treated at another hospital for a chancre, and while he was there a roseola appeared. He left hospital because he would not submit to treatment. Four or five weeks later, he noticed a generalized eruption of pimples, as he expressed it, and consulted a pharmacist who gave him some simple diaphoretic. The eruption continued to increase and he then consulted a homoeopathic physician who treated him for a month without success. For the past six weeks there had been developing on the legs a number of scabs, as the patient describes them, under which considerable pus was found. Much alopecia for the past month. No sore throat.

Status praesens. General debility with anemia. The entire body surface was covered with disseminated tubercles, varying in diameter from three mm. to one cm. Their surface was flat, slightly raised above the surrounding skin, and they presented the characteristic reddish brown color. On the back, the centre of the tubercles was slightly depressed and ulcerated, some being covered by a white, thin