tinuity as a leech-bite, in the neighborhood, it will give rise to a chancreoid. The same can be demonstrated when opening the bula artificially; if a superficial incision first be made so as to penetrate the external oblique only, and a drop of the existing matter be inoculated; and if subsequently the knife be made to penetrate the glandular abscess, and some of its contents be also inoculated beneath the epidermis, it will be found that the former inoculation will fail while the latter will succeed.

Secondary abscesses may form in the vicinity of the gland first affected in the virulent, as in the simple inflammatory bula; but virulent pus does not appear except as the result of inoculation from the original abscess. Again, fistulous passages may be produced in the manner already described; these have been known to result in very extensive underclothes of the skin, attended by acute inflammation of the cellular tissue, of the most formidable character.

In some instances, a virulent bula heals kindly in the course of a few weeks, like the milder chancreoids upon the genitals previously described. It is thus probable that many virulent buboes are never recognised as such, since their appearance may not attract the attention of the attendant physician, and the only unfailing test of their existence—autopsition—is rarely applied, or even necessary. But there is another termination, which is far less fortunate, and which, although not frequent, is one of the most fearful consequences of venereal exposure:

**Virulent adenitis, none of the different forms of bula, is liable to phlegadenitis.**

In a few cases this complication would appear to follow, and perhaps depend upon, that of the chancreoid upon the genitals, phlegadenitis existing in both; but, in the majority, phlegadenitis attacks the inguinal chancreoid or bula, when the original sore has shown no such tendency, or has even been of the mildest type. The remarks already made with regard to phlegadenitis in connection with the chancreoid apply here. It may appear in three forms:

1. **Limited in extent and duration; merely enlarging the boundaries of the abscess, or at most increasing its depth and persistence, but soon yielding to appropriate treatment.**

2. **Sloughing phlegadenitis, resembling hospital gangrene, a rare form when accompanying a bula; and**

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3. **Serpiginous phlegadenitis, to the extent and duration of which there is no limit.**

The last-named form is the source of those persistent and disgusting serpiginous ulcers which we occasionally see in our public hospitals, and which are depicted in all sets of illustrations of venereal diseases. (See *Chirurgie de la Vénère*, pl. xvi.)

Judging from my own observation, these ulcers commence in a virulent bula far more frequently than in a chancreoid upon the genitals. Their symptoms have already been described in the preceding chapter, and their possible severity is shown in the following case reported by Fournier:

"A deplorable instance of ganglionic phlegadenitis was to be seen in the wards of M. Ricord, in 1846. The patient had contracted, in 1843, a simple chancre on the penis, which healed readily itself, but which was complicated with an acute bula. This bula suppurated,
most empiric means known to science, this ulcer still extended; it
invaded the whole inguinal region, turned the flank, mounted
towards the loins, and entirely covered one buttock; then it de-
scented again upon the thigh, the posterior and external surface of
which it plunged up for the whole extent of the limb, and at last
reached below the knees, where it finally spread out over an enormous
surface. Everything was done for this horrible sore, but all means
failed. The patient left the hospital without benefit and wholly dis-
couraged. Many years after, I met this unfortunate in one of the
streets of Paris, pale, emaciated, and scarcely able to drag himself
along. He told me that he had been subjected to various modes of
treatment, without success, and that his ulcer was still present.
Moreover, his leg was fixed at a right angle upon the thigh through
retraction of the cicatrices on the posterior aspect of the knee. The
disease had now lasted for fourteen years.1

COMPLICATIONS.—On account of the anatomical situation of the
inguinal ganglion, lying in loose connective tissue and in the vicinity
of important vascular connections, buboes in this region, especially
after having been laid open and thus deprived of the support of the
integument, are exposed to various forms of hemorrhage, which have
been studied at length in an able article by Dr. De Pauli. According
to this author, the hemorrhages may assume three forms.

1. It may take place in the connective tissue surrounding the
lymph gland, which the pus from the extravesical blood may be
seen to come from the edges of the wound, or may be forced out in
a jet on pressure, leaving the solid constituents behind to be absorbed;
or, as a rule, the effusion has been large, inflammatory action is set up,
and an abscess is formed, which finally communicates with the origin-
ally one by means of a fistulous tract, or opens through the overlying
skin.

2. The hemorrhage may take place from the surface of the bubo,
even when the latter has been progressive favoring with a prospect
of speedy cicatrization.

3. Further, De Pauli speaks of what he calls a hemorrhagic bubo,
a form which, it appears, is not uncommon among the impoverished
residents of the large cities of Italy. In this form, the tumor is de-
veloped in the groin and gradually enlarges without producing much
swelling externally. The skin covering it is of a rose-red color,
somewhat darker at the center. Elevation is detected on palpation,
but it is evident that the amount of matter is not proportionate
to the extent of the undermining of the integument. The patient
suffers little inconvenience, and probably pursues his ordinary avoc-
tions.

Following the act of coughing, or on straining, or even without
appreciable cause, this swelling undergoes a sudden increase in size.


If indeed, a moderate amount of blood escapes, and an extensive
swelling is exposed, covered with features of a bluish color, with one
or more hyperesthetic glands at the centre. These latter, if cut into,
blood freely. The surrounding integument is found to be extensively
detached, blistered, and ecchymosed. The vascular branches or arteriae
connecting the opposite walls of the abscess, which are usually found
in the purulent bubo, are here completely wanting.

Even after severe incision, little tenderness is shown towards separa-
tive action. Fungous granulations spring up, which, on the slightest
occasion, as a fit of coughing or the application of almost any deter-
ment, break down again and bleed freely, and the case is often aggravated
by the formation of ecchymoses in the neighborhood.

De Pauli has observed this bubo in persons of a decidedly nervous
or phlegmatic temperament, but more frequently in those af-
fected with scrofula, of which it is often one of the earliest manifesta-
tions; in fact, the horrible form of scrofula which affects moribund, but
the mildest form not with among the impoverished residents of the
slums of large cities.2

Dr. Hammond mentions a case of death from pneumonia following
the opening of a bubo (op. cit., p. 57). Prof. B. W. McCrady has met
with a similar case, opening into the bladder and giving rise to a
urinary fistula.3

A bubo sometimes occasions peritonitis, which is usually partial,
but which may become general. Clerc gives two such fatal cases,
including the post-mortem appearances.

The possibility of a bubo being transformed into a cancerous ulcer
is admitted by Julillè (op. cit., p. 458), who quotes Roëlet as having
met with such a case in an old man.

An instance is reported by De Pauli, in which the inflammatory
process extended from a bubo in the groin to a testicle retained in the
corresponding inguinal canal.

BUONI D'AMBRE.4—The older writers on sexual diseases be-
lieved that the chancroidal and syphilitic poisons could be absorbed
without any lesion of the skin and without any sore appearing at the
point of absorption. In this manner, they stipulated that no bubo n'to
be caused by the specific infection of the system. Within the present century this view has been
advocated by Brunet, Castellani, Bertheraud, Canizaro, and Vidal
de Constant, partly also by Rev. and has been strongly opposed by Ri-
cord, Fournier, Roëlet, Langlebert, Voelcker, and others. None of
these authors, in its favor, not forgetting one published by Mol-
las, which attached at the time considerable attention, and which
made a convert of Delay, can be regarded as convincing.

2 B. Mollière, Observ. de bubon d'ambre chancroide, Lyon méd., 1873, t.
3 Lipp, op. cit., 1878, p. 329.
4 B. Mollière, Observ. de bubon d'ambre chancroide, Lyon méd., 1873, t.
In short, there is as yet no proof whatever that the chancreal or syphilitic poison can be absorbed through the sound integument and no local reaction occur at the point of inoculation. A bubo secreting inexcusable pus can depend only upon a chancre situated either externally or concealed within a mucous canal, as the urethra, vagina, or rectum. This chancre may escape observation, either on account of its having banded at the time the patient comes under observation or because it is not sufficiently sought for, but it must exist or have existed. Until more satisfactory evidence is adduced in its favor, we must conclude that the existence of a "bubo d'embolie" is not proven.

Diagnoses of Buboes.—It is rarely the case that a bubo can be mistaken by an intelligent observer for any other affection, and little more than mere mention of the possible sources of error will be called for.

Bouma will be recognized by the softness of the swelling, by the impulse conveyed on coughing or sneezing, by its disappearance on pressure or on assuming the stomatone posture, by its increase when the patient is standing, by the absence of tenderness and other symptoms of inflammation. In case the patient is irreducible, we still find reversion on percussion, and, should strangulation occur, the constipation of the bowels, the feverishness, the tenderness of the abdomen, and the grave general symptoms which rapidly ensue, will probably put the attending surgeon on the right track; we say "probably," because a bubo alone may set up peritonitis, the cause of which, however, is not likely to be mistaken, unless by a careless observer.

An ascendant testicle, inflamed in the course of a gonorrhea, may be mistaken for a bubo. The diagnosis may be based on the following points:

1. Absence of the testicle from the scrotum on the affected side.
2. The presence in the inguinal canal of a movable tumor, small in form, smaller than the descended testicle, but giving the characteristic pain on pressure.
3. The fixed tumor is seated above Poupart's ligament, and its long axis corresponds with that of the inguinal canal.
4. The tumor is separable, on manipulation, into two portions, one inferior and larger, harder, and more irregular, which is the epididymis; the other, superior and external, smaller, more smooth and softer, which is the testicle.

Inflammation of the cord due to gonorrhea rarely occurs without the epididymis on the same side being also affected. Should it, however, occur alone, the coexistence of the urethral discharge, the position of the swelling, its diffuse character, and the very considerable amount of pain and uneasiness which it occasions—for greater than that caused by a gonorrhoeal bubo—will serve to distinguish it.

Varic of the internal saphene vein, at the point where it passes through the saphene opening in the fascia into a short distance below Poupart's ligament, is said to have been mistaken for a bubo, as well as for a femoral hernia. According to Zeisl, the swelling in varic of the saphene vein falls insidiously with inspiration and expiration; and, if the veins of the veins are so thickened that this motion cannot be perceived, the diagnosis may be made out in the following manner: If the vein be compressed by the fingers below the varix, the supply of blood will be cut off, and the tumor collapse; if the same be done above the varix, the tumor will become more tense and prominent.

An ulcerated epithelium of the glans, which often accompanies epithelial cancer of the penis, may closely resemble a phagedenic bubo. The diagnostic signs have already been given, when speaking of the chancre.

It is possible that any one should fail to distinguish between a bubo and a simple abscess, an aneurism or a dissecting of the thigh.

Diagnosis between the Simple and Virulent Buboes.—There is no certain means of diagnosis between a simple and virulent bubo on their first appearance. If the patient has simply a gonorrhea, balanitis, herpes, cancrum, or a mere abrasion, a supervening bubo can of course be only a simple bubo. If he has a chancreoid, the bubo may be either simple or virulent. We find, in general, that a simple bubo appears during the first fortnight of the existence of the cause upon which it depends, a virulent bubo after this period; that a virulent bubo is ushered in with more acute symptoms, as a chill, pain, and skeletal disturbances; moreover, the glandular tumor is more circumscript, and presents a hardness and elasticity which are not met with in the simple bubo. The virulent bubo also hastens with greater rigidity and with certainty to suppuration.

When a virulent bubo is left to open itself or is opened by the knife, the contained pus is found to be thick and creamy; the secretion of a simple bubo, on the contrary, is usually thin, watery, and flocculent. Auto-inoculation of the secretion of a virulent bubo, provided the matter be taken from the cavity of the gland itself, will produce a pusule followed by a chancreoid ulcer; inoculation of the matter of a simple bubo will fail. Finally, when the bubo is virulent, the whole surface of the tumor becomes inoculated by the virus discharged from the gland, and the sore presents those characteristics which have already been described as belonging to the chancreoid, and a chancreoid is easily induced in all the accidents of the latter, especially phagedenic, and subject to the same treatment.

When a patient has a bubo in each groin, it may be that the one on one side is simple while the one on the other is virulent, as observed by Ricord and others.

The diagnosis between the two forms of bubo here mentioned and the inoculation of the ganglia dependent upon syphilis, will be given by
in the chapter on the evolution of syphilis. It should here, however, be observed that we may have a bubo of a double character, just as we have sometimes a "mixed chancre." For instance, a true chancre upon the genitals occasioned by the involution of the inguinal bubo; this fact does not prove the same glandula from taking on inflammation and suppuration in consequence of any of the simple causes already mentioned—and this is known to be of not very frequent occurrence.—if there is any reason why a chancre should exist upon the genitals should not excite in the same glandula virulent (chancreal) inflammation. 

TREATMENT OF BUBOES.—A patient with any affection of the genital organs will best avoid a bubo by remaining as quiet as possible—abstaining from much exercise of any kind; by using a suspensory bandage when on his feet and keeping the parts elevated upon the abdomen when in bed; by a light diet and the avoidance of stimulants, and by securing freedom of the bowels. To the same end, the surgeon will take care neither to irritate the lesion, whatever it may be, upon the genitals, by inappropriate dressings or applications, nor to abrade its surface and thereby lay open channels for absorption. This remark does not conflict with the use of one of the stronger antiseptics in the early stages of a chancreal, when its employment may be expected to destroy the virulence of the ulcer and render the absorption of virulent pus impossible. Thus much as to the prophylaxis of buboes.

Supporting a bubo to have made its appearance, what then? In the first place, let the young surgeon remember that any attempt to abort it can be successful only in case the bubo is a simple inflammatory one; in case it is a virulent bubo, the attempt will surely fail. Some weight, therefore, should be attached to the affection or lesion on which the bubo depends. If this be a generative or balanitis, an eruption of herpes, or other simple affection, we are encouraged to use every means to effect resolution of the tumor, and shall often succeed unless the patient be of a miserable, strumous constitution. But even if the patient have a chancreal, his bubo may still be simple, and hence attempts to abort it are not absolutely contraindicated, but need not be persisted in beyond a reasonable period.

Abative Measures.—Of all available means to effect resolution of a bubo and to avert suppuration, rest is of the first importance, and the more absolute it is the better. Walking and even standing should be avoided, and the reclining posture be maintained, with the hips elevated by means of a cushion or pillow. An active estimative at the outset will rarely be amiss, and an evacuation from the bowels should be obtained daily. If the patient be of full habit his diet should be low, but when the system is already depressed or cachetic, strict abstinence will favor suppuration, and should be avoided. Similar rules should govern the use of local depletion, the benefit from which, however, is so uncertain as scarcely to compensate for its inconvenience; yet when the patient is pellagous, and the local symptoms acute, from six to a dozen leeches may be applied near (not upon) the tumor, and the bleeding be promoted by immersion in a hot bath; but leeches should never be used when an abscess has formed and is upon the point of opening, lest their bites be inoculated and transformed into chancreals, in case the bubo be of the virulent kind.

The application of ice or of ice-cold compresses to the swelling, especially when it is of an acute inflammatory type, will sometimes be successful in aborting a bubo. So long as it is agreeable to the patient's feelings, it may be regarded as beneficial.

Of local applications, used as counter-irritants, none is more convenient nor perhaps more efficacious than the tincture of iodine. It is desirable, however, to use a stronger preparation than the ordinary tincture of the Dispersary, as Churchill's, the formula for which is the following:

B. Iodini Per. Solv. 75
Tannini Indig. G. 125
Sph. Aselli, 15x 500
Alcohol, Eter. 124

The tinctura iodini decolorata may also be used, when staining of the skin must necessarily be avoided. Again, the following solution is a valuable counter-irritant:

B. Potassii Indig. 120
Iodini Per. Solv. 60
Uraginum Acid. Solv. 30

Or a solution of iodine in glycerin:

B. Iodini Per. Solv. 120
Glyc. Per. Solv. 4

Either of these preparations may be applied twice a day until as much inflammation is induced as the patient can well bear, when the application must be less frequent.

For the purpose of lessening the irritation produced by the tincture of iodine, Prof. Sigmund adds the tincture of mugall, and Prof. Zetel the tincture of belladonna (Zetel, loc. cit. p. 321):

B. Thym. Indig. 30
Thym. Gall. 30

B. Iodini Per. Solv. 24
Thym. Indig. 50

B. Iodinum, 30