AN
INAUGURAL DISSERTATION
ON
Cancer

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BY
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To A.W. Buchanan M.D. professor of Physiology and Pathology in the University of Nashville. This essay intended not to elucidate, but to call the attention of the medical profession more particularly to the disease of cancer in most respectfully inscribed by his pupil. Through the sincere regard he has for him, on account of his high professional ability and the profound respect he has always shown towards his pupils in medicine.

The Author
Cancer,

This disease is decidedly loathsome and uncompromising in its character, one from which all medical men shrink, one that has hitherto bid defiance to the seeming skill and ingenuity of Physicians of the highest attainments, and by them regarded as incurable and essentially fatal, one upon which materia medica has exhausted her unbounded fulness. Still it makes its gigantic strides throughout the length and breadth of the land, unfeathered and unchained, laying its ruthless hand upon whom it will, committing its savages and deprivations upon...
The humane family and more day molest or make it afraid, Against it the medical profession have elevated their artillery time and again, but as often have they missed their aim, it is yet. The Monarch of all it surveys. Not only have the regular army of Physicians bought their bombs, battering-rams and cannons to bear upon this disease, but the militia though saw and undrilled in the tactics of medicines, on seeing the regular army hoist their colors turn their back upon the enemy and desert the field. They too have marshaled their forces ambushed themselves concealed their weapons and surprising the enemy from ditches.
as savages and thickets, and now and then taking a defenceless spy, they cry out victory, victory, victory, feeling their inability to combat so formidable an enemy. They have selected this savage barbarism and cowardly mode of warfare. Yet the monster in bitter spite goes headlong on laying waste and destroying human life and happiness, and the medical profession stands with ground and arms with neither shield nor buckles on. I would ask if this is the conduct of reason and intelligence, is such conduct worthy of men of science and research, is it the conduct of him who has labor, vincit omnia, nihil desperandum.
or "excelsior," for his mother. No it is the conduct of folly and baseness, is it possible that the whole medical fraternity have yielded to a disease merely because it appears inexcusable, to declare a disease inexcusable and ground arms is too humiliating. I had rather found with arms on and ready for the conflict, I am opposed to any sort of amnesties or compromises with disease, nothing short of complete triumph should ever satisfy the true Physician, and I do think if every worthy and well qualified Physician being "duly and truly prepared," would draw his Medical sword and throw away the scabbard and de-
clear air everlasting was against disease, the most obstinate and reluctant would yield, care not except, and whilst I abhor the quack, both on account of his impudence and procracy yet I can but admit that his perseverance is commendable. It seems remarkable at the first glance that this disease has propagated so many deaths but when we reflect a moment we can easily solve the mystery, we offer them as our reason why this disease has been so fatal of deaths is because the regular Physicians has declared it incurable and often they have refused to do anything for patients laboring under this disease, and when this is the case in any
disease it leaves the case open for experimenters, he who says he cannot conquer and tries not, surely will not conquer, but he who says he can and tries may perhaps succeed. To admit that a disease in all its forms and phases is incurable is a doctrine I never expect entertain, but that there are diseases incurable after long standing no sane man will dare to question, an essentially incurable disease and one that has not as yet been cured are two very different things, to say that a disease is incurable in all its stages is to say that of all the elements both mineral and vegetable that God has supplied old another earth with, these
has nothing yet been created which
will either counteract or destroy
the poisons of cancer. If this is true
the fact is very humiliating, now
if the disease in question were always
so situated that the remedies could
not be applied the cry of ineradicable
would be more reasonable, but
on the contrary it is very frequently
externally located where there is
no difficulty whatever in making
applications of any and all sorts
of remedies. The failure then lies
in a want of a proper remedy,
that a specific or remedy has yet
been discovered I will not pretend
to say, but to say there can no
remedy be found, is an assertion
unworthy of the cultivated Science of
There was a time when simple intermittent fever slew its thousands and put its tens of thousands to flight, when it destroyed Kings and Monarchs when it destroyed life upon the right and left, when it was regarded as incurable or incurable as cholera is now or the disease under consideration, but finally God in his wisdom and mercy directed a poor day laborer who was afflicted with this disease to a stagnant pool to shake his burning dress day after day, and this was the fortunate remedy of securing health discovered, and although the afflicted man was thus led by the hand of God to the means of his own
relief, yet little did he think so
simple a remedy was to make
the hearts of millions and
save the lives of thousands;
There was once no specific against
the small pox virus, till the all-
compassing mind of Jenner discovered
the virtue in a milk maid and traced
it thence to the cow-pen, and after
he had made sufficient experiments
and proved the truth of his discovery
he then made it known, and by
so doing he was thought to be
dishonoured forever, and the Medical
ments refused him space to declare
one of the most renowned discoveries
that now graces the pages of the
healing art, but regardless of
their grumblings and censures the in-
dominable spirit of Jenner neither faltered or hesitated, but proceeded with energy and perseverance, and over the head of all opposition brought to light the inestimable blessing. Alone from such invincible spirits as Jenner, who are willing to suffer shame and reproach for the sake of Truth and Science, that we are to expect new and permanent development in the Medical Science. To men who prefer reputation to Truth, we may both inwardly for progress. Simple diarrhoea was once regarded as incurable as cancer, but now the veriest grass in the land can prevent Small pox about intermittent fever, and cure diarrhoea, and may even not
reasonably hope that the time will come and that the day is not far distant when every old woman in the land will be able to place her everlasting hold on cancer, and say 'thus far Shalt thou go and no farther.' The remedy will come, for it must come. Great discoveries like moral reforms must go on, and if the wise and hopeful become sluggish and indifferent and desert the field of investigation the illiterate will be made to confound the wise. If James was immortalised for discovering a preventative for smallpox what will be the reward of him who discovers a permanent cure for cancer? There is no disease that deserves a more
Thorugh investigation, none about which we should be more interested in gaining a remedy for, it is not only the most obstinate and loathsome but the most corroding and fatal. In all cancers there is a fibrous tumor on basis, yet finer and more condensed in some than in other varieties. There is also a fluid and in this there are granules, cells, pigmentary and fatty matter, the fibrous portion being greatly predominant in all these varieties, according to the books there are several varieties, their names being very significant of the nature and consistency of the disease, or tumor; the best authors give about five varieties of Scirrhus as hard
Encephaloid or soft, colloid or gelatinous, melanotic or black, and the epithelial variety. Three general divisions are again subdivided, the result of which serves only to confound the student, and to give a description of these subdivisions would be a task too tedious for the present essay, and before I go into a description of these general varieties I will state a few facts relative to the whole family of cancers. Some cancers are hard and firm, whilst others are soft and elastic. Some extremely painful, others progress with scarcely any inconvenience to the patient whatever. The intensity of the pain depends in some degree on the tissue of the part.
affected and partly on the variety they originate in small inciting simples, gradually spreading involving to a greater or less degree the surrounding tissue, attaining various sizes from a pea to that of an ordinary spank, weighing from one dram to twenty five pounds, some are very much subject to hemorhage, others are nonvascular, some progress very rapidly attaining an enormous size in a short time, the growth of others is so slow that it is scarcely perceptible during a space of several months, the rapidity of their growth depends upon the vascularity of the time and the temperament of the person, there is scarcely a tissue of the body or an organ ex-
empt from this disease, yet it has favorite localities, the brain, lungs, kidney, Stomach, diaphragm, men-Imm. lives, bowels, rectum, in fact the entire organization, internal and external are frequently involved. Yet the testicles, uterus and mammary are the favorite localities, all ages and all sexes are the victims; it attacks the foetus in utero as well as the grand parent on the birth of the grave, although it spares neither sex; yet like the most of men it is particularly fond of the women, and though no age is exempt yet people under thirty are not so much subject to it as those above that age, one other suggestion I beg leave to make as a matter of my own obser-
vation, I hail from a City in which there resides a noted cancer Drach, to whom many persons resort with cancers, and chronic ulcers, and it is remarked by all who have paid any attention that a large majority of patients thus afflicted have light or sandy hair, and thin fair and slightly freckled skin. I do not remember to have seen this in any medical work, hence I cast it but by the way for what it is worth. We come now to notice the different varieties which we have enumerated above, though we do not agree to everything that is said in the books respecting them, for in many respects they contrast strongly with each other, whilst their differences consist more in their...
locality and the theme involved, than in chemical or anatomical studies.
Yet every author seemed to think that he had not done justice to the subject until he had found a new name for cancer, it should not be overlooked however that there are different varieties in this disease, but so many nice distinctions and subdivisions as we find in the books, are unwarranted by established facts, and by no means susceptible of demonstration, and serves to perplex the mind rather than to edify. Any reasons for objecting to so many subdivisions is owing to the fact that when the chemical test is applied the same answer is given. Moreover when one cot is removed one of another
society comes in its place, and often you will find as many as three varieties in the same tumor, this is strong evidence that there is great similarity between these.

As to the cause of cancer or its remote cause, the medical fraternity are divided. Some believe it to be owing to a morbid state of the nervous system, some say it depends on an impure state of the blood, others say that it is inherited, whilst a part and by far the most reasonable portion confess their ignorance on the subject. Whatever may be the remote cause, authors generally agree that inflammation is the proximate cause, but what the inflammation is the result of in many
cases is a mooted question, it frequently seems to be hereditary, in other cases it evidently is the result of injuries supervening upon blows, blows, bruises, concussing cases, in such cases some would contend that the blow only served as an exciting cause, merely arousing a predisposing system, again it arises without any assignable reasons from the statistics it would appear that a peculiar inherent disposition on constitution and a particular organ are predisposing causes yet men of high authority deny that there is any such thing as an inherited cancerous system, in diagnosing this disease, we should remember that the tumor is anato-
ically composed of fibrous stroma and a peculiar turbid fluid, and in this fluid there are cells of a spherical form. The unaided eye of the skilful physician will be able often to distinguish the characteristics of the various malignant tumors, and the microscope may be at sometimes unable to detect them still nothing short of this will do to rely on in a difficult case, we should not decide from one or two cells but from a cluster or an aggregate number. Thus tumors do not move freely with the skin but move only with the organ on which it is located, they are more numerous and more easily distinguished.
Than other varieties, it is most generally found on the mammary and lymphatic glands, hard firm and inelastic, seldom grow so large as the other varieties. The encephaloid is soft and elastic, grows very fast and extremely large. The cells are candidate and numerous. This variety is very vascular and malignant, its seat is on the testes in the cavities of the face and on the articulating surfaces of the bone. Though it may grow on any part of the system. The colloid or gelatinous variety usually occurs in the viserae of the three great cavities of the body, hence seldom comes under the observation of the surgeon, it is remarkable for
The semi-transparent gelatinous fluid which it emits. The mela
totic variety is easily distinguished by its color: it casts off a pigmenta
ry matter; it most generally attacks serous membranes and is quit
malignant, resembles the exceph-
aldid except in the color of the dis
charge. The diagnosis of the varion
forms of cancers is not always
a very easy task. Since Tedious ul
cers of gonorrhoea, syphilis and
scarlet fever often degenerate into some
thing similar to cancers, the ep
ithelial variety is not so malignant
we can more reasonably hope for
success after an operation, it usual
ly occurs on the lip, scrotum, ov
ars, breast, slowly has more th
appearance of a local disease, than
the other societies.

The prognosis of this disease
is very unfavorable; in fact, most
writers have pronounced the dis-
case incurable, but with all
due deference to many wise
and good men, I still beg
leave to differ with them, but
lest I might be regarded pre-
sumptuous I will not venture
an assertion without at the same
time good authority. Erichsen
says, "caustics are the remedies
that are usually employed by
physicians who profess to cure
cancer by secret remedies; and
it may doubtless be the case that
such individuals occasionally"
Though very rarely, indeed, effect a cure, by exciting so much inflammation in and around the tumor, as to lead to its sloughing and consequent elimination, Mr. Crichton admits the possibility yet the probability of a cure being effected and the states at the same time.

The means by which the cure is effected, that is, by high inflammation which the body resists in sloughing and elimination, the question here in natural if high inflammation will occasionally cure, is it not reasonable to suppose that if this process were carried far enough would it not frequently cure, guarding
at the same time the life and safety of the patient against the excessine inflammation. We say again that a cancerous tumor is in some cases may be removed with every expectation of the patient being freed from the disease completely cannot I think be doubted although it may be that such instances at least and if we can happily succeed in removing it during its local condition there is a good prospect that the patient may be rescued from a return of the affection, then he thinks that a cancerous tumor may be removed completely, and with every hope that it will not return. He also admits it a local origin and
not a constitutional one, and if it is only a local affection at the commencement in many cases, if we can remove it there either with the knife, or caustic, I cannot see why it should return. Sir Benjamin Brodie says, 'So long ago as 1832 I removed a breast affected with a sarcoma tumor and the lady is still in good health and since the operation she has married and borne children.' His declaration was made in 1846. She says also last year I was called to see another lady on whom I performed an operation thirteen years ago and I found she continued free from the disease.
Here Brodie says he operated in one case and a lapse of fourteen years had passed away and still there was no return and also another of thirteen years and no return. It would seem from this that it is at least probable that a cancer may be cured, Mr. Surgeon says, “nevertheless as excision gives the only chance of security— an operation should be resorted to, provided, the knife can be carried beyond the supposed limits of the disease,” here we again see this author acknowledges limits to this disease and such as can be transcended by a knife. This is equivalent to admitting it to have a local origin.
Treatment. It would be the height of folly and presumption to say that this disease can be cured, using the term "cured," in its ordinary sense, yet the knife seems to be the most successful method of treating it, yet it is unsuccessful so often that it seems almost a useless attempt, although it does seldom effect a permanent cure. Still it may relieve the patients of much suffering and perhaps lengthen their days, and "occasionally effect a cure," we would suggest the propriety of following the knife by caustic lest there might be some remains of the diseased part. Since it would be a very difficult task to remove all the diseased tissue.
without at the same time removing (much that was not diseased, hence we think the old plan of cauterising the wound made by the knife or as to be true we have removed all the diseased tissue, was not a bad idea, or we might substitute in the place something in its stead that would cause so much inflammation in the wound as to excite sloughing and since an ulcer or tumor cured in this way is not so liable to return as one removed by cauterisation we would therefore prefer that mode, when we see there cannot be any hope of success we may do much to gratify the patient by ant dines, such as Chirum, Hemlock, Poison Acid, and such medicines.
To avoid the necessity of resorting to the Surgeon many remedies have been tried, but now have gained so much confidence as those in which arsenic is the principle ingredient, and this has received the highest applause from good authority from time to time. This is the principle ingredient in all Quack remedies it is the 'line gua non' of Quacks, the main ingredient in the remedy of the noted Quack I refer to above, perhaps it would not be out of place here to give this recipe it consists of beech drops 30zs, of red puccoon or Sanguinaria 30zs, and one to two gs arsenic.
I speak what I know and am responsible for the truth of these statements; you will find the same recipe in Gunnades. The medicine almost verbatim he thus states that Rush highly recommends it but whose authority came from God I am not able to say. We find the beech drop itself has gained some confidence in the medical profession as a remedy; hence it is not strange to find it united with arsenic and should I get a case of cancer that was not accessible with the knife I would be induced to try the arsenic and beech drops remembering not to use the
remedy if the patient was of a serofulous habit, for in such cases arsenic might do more harm than good, keeping my patient at the same time on a milk diet and good constitutional treatment, and at the same time guard against too much inflammation; I would not expect to accomplish much in a short time, but would have some hope of success by perseverance; I do not recommend the eelch drops upon the authority of Gunn or any Drach, but upon good medical authority. Should I find it necessary to treat a case by cauterization I would precede the caustic by the freezing mixture.