

AN
INAUGURAL DISSERTATION

ON

Veratrum Viride.

SUBMITTED TO THE

PRESIDENT, BOARD OF TRUSTEES AND MEDICAL FACULTY

OF THE

University of Nashville,

FOR THE DEGREE OF

DOCTOR OF MEDICINE.

BY

W. A. Harrison

OF

Athens Ala

March 1st

1857.

JOHN YORK & CO.,

BOOKSELLERS AND STATIONERS,

NASHVILLE, TENN.

Veratrum Viride -

In accordance with a well established
but in my opinion useless custom, it is
my duty as a candidate for the degree of
Doctor of Medicine to write a short monograph
on some subject connected with the science
of medicine. I have chosen Veratrum
Viride, as it has created so much interest
and excitement, among the medical profession
for the last few years. in regard to its merits
and properties - Much has been said and written
in favor of and against it. And the medical
opinion is not definitely settled at the present
time - Though judging from the tendency
of the numerous articles appearing in every
number of the medical journals and other
periodicals, I think it will soon be adopted
by the profession, as one of the best and
most reliable of the Materia Medica -
one that will be commensurate in its

benefits and usefulness. To the deep and thorough investigation, through which this article has passed. No remedy ever met with a more determined and inveterate opposition ~~and~~ I believe none will ever achieve a greater Triumph. Like all new remedies in the beginning, no doubt, many of its advocates too sanguine and enthusiastic, claimed more for it than it was possible for it, or any other remedy to accomplish. Others noticing their statements, and with^{out} making a proper selection of the cases in which to use it, or using it in cases, in which they had despaired of relief from any other source, and failing to obtain it - jumped at once to the conclusion that it was useless and good for nothing or a very dangerous remedy and one that should not be given under any circumstances - - - Generally too much is expected from a new -

-remedy. and some seem to forget that all
medicines fail sometimes - But experience,
The Touchstone of all things good or bad - has
proven, that when properly given, and the condition
of the patient and the circumstances of the
disease are attended to, that it is a reliable -
remedy, and is capable of conferring innumerable
blessings upon suffering humanity - Having -
said this much as a sort of introductory -
preface, I will commence my subject, by giving
a brief botanical description of the plant -
as much confusion has resulted from confound-
ing - the *Veratrum viride*, with the common poke
root of this country and the white Hellebore -
and other species of the same genus - ~ ~
Dr C. K. Winston, in a paper read before the
Tennessee State Medical society, on the subject
of *Veratrum viride*, and published in the -
July number of the Nashville Journal of -

of Medicine and Surgery - 1856. Thus describes
it - "*Veratrum Viride* sex. syst. Polyamia. Monoe-
ca - (Rhizoma) U.S. (secondary List) according to
J. Carson is known in the United States, as American
Hellebore, Swamp Hellebore, Indian Poke, and
Stech Weed - It has a perennial, thick, fleshy root -
tapered at the top, the lower part solid and send-
ing off numerous white or light yellow radicles -
The stem is annual from two to three feet high and
pubescent. The leaves at base six inches to a foot
long, broad, oval, nerved, acuminate, of a deep green
color and pubescent. Those on the stem narrower,
and at the summit bractaeform. Flowers in panicles -
terminal and of a greenish yellow tint. The calyx
is wanting, petals six, stamens six, pistil a rudiment
(wildenow) germs three, when not rudimentary, on the
lower portion of the panicle - It is found in various
portions of the United States, early in March -
along the banks of the water courses - in meadows -

and Swampy places. and belongs to the same order of plants as the *Colchicum autumnale* - *Sabadilla* &c. - "The root is the officinal part" -

The credit of separating the powers and properties of *Veratrum viride*. from those of the other species of *Veratrum*. and of calling the attention of the medical profession to this article, is due to - Dr. W. C. Norwood of Cohesbury South Carolina. As it had been almost wholly laid aside, until he brought it forward, as a remedy possessing great power and usefulness. I might go farther and say that its peculiar powers were never known, so as to be correctly applied until he investigated them. *Veratrum Viride*, according to those who have investigated the subject, deeply and observed closely, possesses a number of valuable powers - When Taken it produces a peculiar warm, biting sensation in the mouth and fauces, very persisting and followed by a -

- copious secretion from the mucous membrane. When the powdered root is snuffed up the nostrils violent sneezing is the result - When the Tincture is rubbed on the surface - it acts as a rubefacient - producing redness and a burning sensation, thereby often relieving pain - It is a powerful diaphoretic, acting from a mere softening and relaxation of the skin, to the most free and profuse perspiration. Its expectorant powers are equalled by few and surpassed by no article in the Materia Medica - Its adangic alterative or deobstruent qualities are supposed by many to be equal to, if not superior to those of Iodine and Mercury - It is nervine but not narcotic - allaying pain and nervous irritability, without stupefying the system as opium and its compounds or preparations - It is a certain and efficient emetic - much liked by many - But in as much as it is attended with some risk,

I should not advise it for its emetic effect -
alone, as we have other emetics less hazardous -
that will answer every purpose. though it may -
frequently be necessary to give it in quantities -
sufficiently large to produce emesis, in order
to overcome the disease - but the vomiting, in this
case is altogether a secondary consideration. the subduc-
tion of the disease being the leading object - It is
said to possess a superiority over Tartar emetic. and
other active and powerful agents of the same class
in not passing off by the bowels - Having thus hastily
glanced over those properties I come directly to the
consideration of the most remarkable and at the
same time most important physiological -
effect of *Veratrum viride* - namely the reduction
of the heart's action - with perfect safety to the
patient. This has been attempted by other remedies -
- but they are all liable to be followed by unpleasant
effects - *Digitalis* is accumulative - and may suddenly -

- destroy the patient. Tartar emetic frequently -
produces excessive purging - inflammation - ulceration &c
of bowels - But with the Veratrum viride, the pulse
may be reduced from one hundred and sixty to thirty -
five beats in the minute - and the patient be perfect-
ly free from any danger - and no injury will ensue
to the circulatory and nervous systems - And as no other
remedy will do this, it is plain that it is a remedy of -
the highest value - That it does control the arterial -
action - ad libitum - almost, is too well authenticated to -
admit of doubt - The failures are so seldom that we may -
call it universal on the principle that the exception
proves the rule - It does this through the medium
of the Pneumogastric nerve - although the number of -
beats is lessened in the minute - yet the strength and
volume of the ^{pulse} is increased - and where the pulse is
lessened in frequency and not improved in volume
and strength, the veratrum viride should be discontin-
ued - as it is considered by close observers to be ^{hi}inapplicable

To that particular case. When *Veratrum viride* is given so as to affect a reduction of the heart's action, nausea, vomiting and occasionally hiccough - is produced. Though the reduction may take place, without producing the nausea, vomiting or hiccough. Showing conclusively that it is not dependent on either of those circumstances -

The *Veratrum* is usually given in the form of tincture. By the Stomach. Dr. Norwood's Tincture is usually preferred as it is more uniform in its strength - of this the dose for an adult male is six to twelve drops. for female four to eight drops. for a child one to five drops - these are the quantities usually mentioned - but particular cases might require more - and in all cases the effect to be produced, and not the quantity, should be our guide.

The reduction of the pulse, nausea and vomiting are the points that govern us in administering it - It is given until one or the other of these effects is brought about, and then withdrawn entirely or lessened in quantity, according to circumstances. If the nausea and vomiting should be in

-excess, a small portion of syrup of Morphia and tincture of
Ginger or Sassailla and Brandy, will relieve every un-
pleasant ~~symptom~~ ^{sensation} immediately - And The Veratrum viride
given in conjunction with a few drops of Sassailla in a
teaspoonful of Brandy - will reduce the hearts action -
nine or ten times out of twenty, without producing nausea
and vomiting. This is of some practical importance,
as patients complain very much of the extreme nausea -
and in certain cases, as pregnancy; it might be very -
desirable to obtain the effect of veratrum viride, without
exciting vomiting - It may be correctly infered from
that expression, that I do not believe the article has
any abortive powers greater than belong to emetics -
generally - Indeed it is a question with me whether it
has as much as some others - For those who have used
it say, that although the nausea is excessive, the vomiting
is easy and there is very slight contraction of the
abdominal muscles - Hence there is but little compres-
sion of the gravid uterus - And as the foetal circula-

lution is but slightly if at all. affected by the mater-
nal. I see no philosophic reason upon which to base the
opinion, that it has a specific effect upon the foetus in
utero. That children may have been born dead after this
article had been administered. is no reason that the
remedy had any effect in producing their death. . . .
For it should be borne in mind. that all disease^s. are
frequent causes of abortion. especially in the later
stages of gestation. The febrile and inflammatory dis-
eases. particularly, are mentioned as playing an impor-
-tant part in this respect. and the more acute and
violent the attack. the greater is the liability of abortion
following. And when it is remembered that it is in the
treatment of these acute and violent affections of a
febrile or inflammatory nature, (the very class of diseases in
which abortion most frequently occurs, no matter what
remedy is employed) that veratrum viride is used. is it
not reasonable to suppose. that most of the cases of
abortion following its administration. and charged to its

-account. if properly placed, would rest upon the disease itself, instead of the agent employed - In regard to another substance we know that the uninformed believe it does a great deal of mischief, when in fact, the mischief done, is an effect of the disease. I allude to Quinine - Many forms of disease are liable to be followed by a partial or complete loss of hearing. If quinine should happen to be incidentally employed in any of those cases, it would be certain to get all the credit of all the harm done, when the effect would have been the same if no quinine had been taken. The two cases appear to me, to be parallel and similar in every respect. - But we are not entirely dependent on analogy and speculation for a support of our position - If veratrum viride, possesses a specific, deleterious influence on the foetus, in utero, as some assert, it ought to display its power, by destroying every child, whose mother, might be so unfortunate as to take the veratrum viride, during the period of gestation. That such is not the fact is affirmed by a host of practitioners.

- who have used it through all the stages of pregnancy -

In the January number of The Nashville Journal of Medicine and Surgery for the present year is an account of four cases. very interesting and important, as they bear materially on the point in question - They are reported by B.F. Newson M.D. of Reynolds Georgia - In the first case he gave veratrum viride to a woman, with marked symptoms of premature Labour, eight months advanced - The remedy was given so as to produce its full sedative effect - nausea, free vomiting and the pulse - reduced from one hundred and twenty to sixty beats in the minute - Yet she did not abort but went her full term and was delivered of a fine, healthy, living child - In each of his next two cases - it was taken to produce abortion - Large doses were taken - and according to the graphic description of Dr. Newson - he found her (the case) "prostrated, excessive nausea, frequent vomiting, death like paleness of the surface cold clammy perspiration, pulse full, soft and distinct,

beating forty times per minute." The third case was
in pretty much the same condition - both were
relieved by appropriate means - and strange to say
neither aborted - but were after wards delivered
of living children - Case number four - Lady
four and a half months advanced in pregnancy -
attempted to destroy her self by taking a large
dose - about one drachm. of Tincture of Veratrum Viride
She was relieved and did not abort - In referring to these
cases. Dr. Simpson. makes the following pertinent remarks -
"Here are four cases, coming under my own observation, where
Veratrum viride was taken so as to produce its full sedative
effects and in neither case did it produce abortion - The
first of these cases, it appears to me was in a proper
condition to have favored its abortive effects, if it
possessed any - The uterus was contracting violently, evidently
intending to throw off its contents; as however she
became affected by the veratrum viride, the uterine
contractions lessened in severity even before she took -

any opium" - "And besides what does he (Brown) do -
with the other three cases; in these three cases -
The veratrum viride was taken by pregnant females
in good health, for the express purpose of producing
abortion or death - Here there were no guards thrown
around, neither was there any disease to interfere
The remedy therefore had a fair chance to show its
hand - Now I ask in all candor - if it fail to produce
abortion in the healthy female, why should we -
charge it with producing that effect in disease
simply because abortion has been known to
take place in a case or cases in which it was used?"
Besides definitely settling the question so far as they
go - They are interesting in another point - namely
in regard to the large doses that were taken
by the three last cases - each having taken it in
teaspoonful doses - The inference I draw from them
is that the veratrum viride might be used in larger
doses than is commonly supposed, without any -

ultimate ill effects - I think I have been sufficiently explicit to be readily comprehended on that subject. There remains but two points in relation to Veratrum viride to be considered - namely some of the advantages claimed for it, over other remedies of the same class - and some of the diseases in which it has been useful and beneficial. It is said to be more certain - hence more reliable - and to accomplish a reduction of the heart and arteries, allowing the diseased structure to regain its normal condition, without lessening - materially the vital powers or interfering with the recuperative energies of the system - that it does check the arterial action, stop the progress of the disease and bring about a healthy reaction in the system, without plunging the patient into a condition so feeble and precarious, that it will require almost as much skill and precaution to prevent him dying from exhaustion, as to overcome the disease in the first place. I think ^{of} advant one of its gre
On this account it is especially applicable to the treatment

of the phlegmasiae, supervening upon or associated with an
anemic or worn out condition of the system - where the
loss of a small quantity of blood would be absolutely injurious
- if not fatal - It is our sheet anchor in such cases - And -
then other means may be employed at the same time.
I have only to consider the diseases in which
it has been found most useful - I do not think
it necessary to enter into a special consideration
of every form of disease in which the *veratrum viride*,
has been used successfully. As they are all more or less
dependant on or associated with increased vascular
excitement - and the *veratrum viride* proves -
curative by subduing that excitement. Fevers
and inflammations generally, are the forms of disease
in which this agent is most employed and most
beneficial. It is said to be almost as much of a
specific in Pneumonia and other Phlegmasiae, as
Quinine is for intermittent fever. But it appears
to make a distinction, being much more beneficial.

in the inflammation of the serous membranes and
parenchymatous structure - than in those of the
mucous membrane - In general terms I think it
may be stated, that the more strongly developed
and well marked the inflammation may be, just
in the same proportion will the benefits of the
Veratrum viride be displayed - Gastritis is said
to be an exception to this rule - But in all
other inflammatory affections, it may confi-
dently be relied upon - proper regard being
had to the condition of the patient, circumstan-
ces of the case, state of the disease &c. - It should
always be given as soon in the disease as possible
as its good effects are much more striking
than when given after the disease is under-
headway - and continued sufficiently long to
overcome the disease -