Thesis

on

Post Partum Haemorrhage

by

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Melbourne, Australia.

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Indicated: collapse, cold extremities,

Lose that can be boundaries in stability

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Keep breathing according to depth.

Quieten by back, head low, pelvis high.

Contention: quinina & Currie’s method.

Exterior manipulation.

Essetial to go on a daily, 100 to 1,000 c.c. injection.

Cold douche

Retained placenta

V. Alexia, 2nd

Artery

Mild adherent
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Post Partum Haemorrhage.

(Byp. Dr. LeFevre 1734, Ed.)

This subject has a worldwide interest both referring to the elderly patients & to the successful career of medical practitioners who undertake obstetrical work. The greater calamity can befall a young man commence practice than to meet with such a case which should embolden them to come forth with the ability to cope with it. When it occurs in its usual form there is no time for him to get skilled and one cannot be prepared for the patient's immediately, the loss is the case if he knows how to anticipate it in likely cases, & have them managed in advance.
Mind in a succinct form the varieties, precautionary measures, symptoms, causes, & methods of treatment. To render the subject more intelligible it will be advisable to give a very brief outline of the structure of the uterus which will enable the reader to understand the method of expulsion of its contents, its mode of contraction, & the causes which may retard this contraction. A sketch will also be given of the fetal & maternal circulation. The structure of the uterus is chiefly muscular. Externally, there is a covering of peritoneum, internally there is a lining mucous membrane. The muscular walls consist of three layers, — the external, which is thin & intimately connected with the peritoneum surrounding it, is made up of
Longitudinal & transverse fibres; the middle layer is thicker & contains the large nerve vessels, & is principally formed of flat fascicles extending in all directions; the inner layer is thin like the external one. Has the mucous membrane directly attached to it, there being no submucous tissue. The muscular structure also comprises nucleated fasciculated fibres, free with nucleis associated with white fibrous & elastic tissue. The cervix differs from the above, there being less of the muscular element, it having a large proportion of white fibrous tissue. This arrangement prevents the expansion of the cervix in the same ratio as that of the body of the uterus during gestation. An excessive development of this fibrous tissue is, in my opinion, probably the
the cause of the extreme rigidity occasionally met with. The
muscular membrane is about an eighth of an inch in thickness
according to some authors, but M. Casti states that in the Can-
et Constitutes one fourth of the entire organ. It is of a bright
red than the muscular coat from
the extensive Capillary Circula-
With a magnifying glass the
apertures of the reticular gland
are visible; these run through
the entire thickness of the urethra
Membrane perpendicular to its
surface. They terminate in Cloud
extremities at the inner margin
of the muscular coat but were
formerly supposed to penetrate
the muscular tissue. They are
supplied with Capillary vessels
which form a Complete network
about them. This Capillary net-

system is most observable when the functional activity of the uteri is excited. The uteri are supplied with blood by the uterine and the ovarian arteries. The former arise from the internal iliac, pursuing a downward course, give off branches to the uteri and anastomose with the ovarian arteries which are given off from the aorta, thence pursue a tortuous course which enables them to undergo free distension during pregnancy. The fetal and maternal circulations are distinct, yet intimately connected throughout. The arteries that supply the utero-placental tissue are called "Curling arteries" and are of moderate size; they differ from the veins in being smaller, having fewer branches and anastomosing in the retention of the spiral
form. The Maternal blood supply is conducted by the Curiling arteries into large cells or sinuses, formed by the Coalescence of vessels & the absorption of their walls. Into the Crypts or follicles dip the villi of the chorion; the villi subsequently disappear & the follicles are reduced to their membranes, which ultimately unite with the wall of the fetal vessels, leaving only the Maternal Membrane between the two Circulations. The Sinus are believed to inter-Communicate, forming a large cavity, but this is at disputed point; from then the blood is returned to the Systemic Circulation through the Veins; these Veins emerge at a very acute angle which facilitates their closure when the Placenta is detached.
Anticipatory Diagnosis.

"To be forewarned is to be forearmed. Such being the case it is most important to be able to recognize as far as possible the class of cases in which there is the greatest probability of its occurrence. At the time of accepting an engagement for a confinement careful enquiries should be made of the patient, as to her general health in the past, if she be not a primipara particulars should be gained of previous labours. Not if a slight bleeding has occurred in previous cases, there is at least a likelihood of its recurrence. By still more careful observations one may perhaps discover that it is due to some..."
Constitutional affection such as lead poisoning, leucocyanidion, purpura, or ecchymoses. The latter may be of a haemorrhagic diathesis or suffering from Bright’s disease. Again, the vital powers may be at a low ebb from hyperlactation, rapidly recurring pregnancies, or from wasting diseases. In any of the above cases we should possibly succeed in averting the threatened crisis by removing the cause or building up the general health. I recently had a marked instance of the advisability of adopting this question in two cases last January. One of these had suffered such severe glandings that her life was despaired of by two medical men on the first occasion, but three on the last.
Under appropriate treatment on this present occasion there was no haemorrhage. In addition to the foregoing cases we must also see the alert at the bedside in precipitate labours, in long continued & complicated cases where the patient is utterly exhausted & the vital energies, where the woman is pellagous, or after difficult instrumental labours where there may be some slight laceration, for although this is not usually serious, still a continuous bandage toying may cause a rapid collapse, as unfortunately recently occurred to a patient in the hands of a friend of mine who has been for nearly twenty years a leading obstetric practitioner.

One of the most certain indications of post partum haemorrhage
is the "Haemorrhagic Pulse", a symptom which is very apt to mislead the inquirer. It is a rapid, bounding, and apparently a full pulse, but on a close examination is found to be very compressible. I should distrust loss of blood even if soon becomes feeble & imperceptible. If the pulse retains a fullness, incompressibility & rapidity after the birth of the child she must lie on her guard for flooding, as there is every likelihood of its occurrence. Even where we have not the slightest grounds for anticipate anything of the kind before labor, we may meet with it in its most fatal form. Subsequently,
II Precautionary Measures

If we suspect a liability to haemorrhage, we may frequently help by Arterial and Medicinal treatments to arrest in some measure the disaster, for example, in Chlorotic Cases we can give iron to induce the patient to eat green of Animal Food, whereas with Plethoric woman our treatment would be the reverse of this. In many other ways a Careful practitioner will be able to adopt measures which will diminish the risk of haemorrhage. A recent writer has recommended that Ergot (in five minims doses three times a day) should be given during the last few months as a tonic to the muscular fibre. It is most important to evacuate the uterus slowly.
especially in instrumental labours, to precipitate natural labours we should retard it, if from ten to twenty minutes before the child is expelled give moderate doses of ergot, keeping up its action by small frequent doses. If the pains are feeble, the patient after suffering for a long time has become exhausted, one must hasten on the delivery. As a general rule, when the passage of the head is completed, it is good practice to place one hand on the forehead of the infant, keeping on gentle pressure to follow its descent; the trunk being delivered, circular friction should be resorted to, which will usually cause the uterine to contract rapidly. When the cervix is to expel the placenta quickly, the best method
to adopt is that known as Crede's, which consists in
breaking or squeezing the uterine
contents from their position
into the vagina, whence they
can be easily removed.
The placenta should be carefully
examined to see that no portion
has been left behind. The condi-
tion of the uterus should be
Closely watched, and should it
become relaxed, external pres-
ture and friction must be employ-
ed; Should this prove unsuc-
scessful One hand should be
introduced internally, which will
usually excite contraction.
More especially if the hand
be allowed to remain a short
time as there will then be
an effort to expel it. The
application of the child to the
breast seldom fails to excite
Contraction of the uterus by reflex action. After all clots are cleared away, we are satisfied that the uterus is in a state of contraction, it is our duty to keep it so. This may be done in some cases by the application of a pad to the hypogastric region with the binder firmly applied over it. The medical attendant should never leave the patient until he has satisfied himself that all is safe. He has given instructions to the nurse as to her actions in case of emergency, directing her to keep the patient in the recumbent position for a certain time to avoid any thing likely to produce mental emotion. I generally leave a supply of ergot with the nurse, to be used if necessary.
IV Cases of Post-partum Haemorrhage

This serious calamity may occur from many varied causes, different circumstanced, the chief of which are uterine inertia, muscular paroxysm, Bright’s disease, laceration, or haemorrhagic atresia, the pressure of fibroids, polyp, or other tumours, or from the placenta having been forcibly separated. I shall also include retained placenta although strictly speaking the haemorrhage in that case is not post-partum. The most frequent of these causes is uterine inertia, which may result from simple exhaustion or rapid but violent labour, or in long continued complicated cases, or from muscular paroxysm. Along with the inertia is often met with
In women who have borne a great number of children in a short period, & in those who have suffered from jejuing diseases. A large proportion of cases appear to have been associated with diseases of the kidneys or of some of the blood-forming glands, in which the blood is deficient in red corpuscles & fibrin, as in pemphigus.

A flooding has not improperly been produced by the patient assuming the erect posture immediately after delivery has been completed, or by the too early changing of bedclothes.

Phlegm & ulcerous fibrin almost invariably cause haeorrhage after labour; it may proceed from the tumours themselves, or by their preventing contraction of the uterus, this
Keeping open the uterine veins.
A copious flow may take place during a intermittent relaxation where rapid contraction has succeeded a quick delivery, where there has been little resistance.

In lacerations of the os uteri or vagina, or in injuries to the uterus resulting from the forcible removal of an adherent placenta, there is usually an oozing only, which in rare instances has been known to prove fatal. These accidents are more to be dreaded however from the risk of septics.

Inversion when it takes place may give rise to easy profuse haemorrhage & in many instances proves rapidly fatal; but fortunately this complication is so rare that "It had not occurred in 71,000"
A trivial affair that has been mistaken for slight post-partum haemorrhage is the laceration of a uterine vein of the uterus; this can easily be detected by careful examination.

A small portion of partially adherent placenta retained in the uterus may give rise to troublesome haemorrhage, which in this case is continuous and bright, it being arterial blood. Bleeding from this cause may be immediately after parturition or as late as 140 days after.

Chlorosis, lead poisoning, pleurisy, healed atmosphere, mental emotion, too much clothing, & excitement, are also said to favour floodings.

Placental site is referred to by Prof. A.R. Simpson. (Contributions)
to Obstetrics & Gynecology, 1880, page 89) as influencing the occurrence of haemorrhage, there being more likelihood of bleeding in cases of placenta accreta than in lateral or low insertion.

As the subject of postpartum haemorrhage would be scarcely complete without the mention of that due to retained placenta which is so closely allied to the former it will be included as before stated. In the majority of instances the placenta is expelled with or shortly after the child, but it not infrequently happens that it is retained owing to insufficient contractility of the uterus, irregular contraction, temporary lassitude, morbid adhesion of placenta, or where the site of placenta is low; for in this last case the placenta

[Handwritten text continues...]
fibres are there thin & less Contractile, and Dr. Prior has described some rare kinds of Abnormal Placenta, — the form of which favoured retention.

Irregular Contraction is Caused by Spasms of the Muscles. It is most frequently produced by traction on the Cord. In what is called "hour-glass" Contraction the uterine is divided into two parts, the Constriction usually being below the Placenta, thus impeding it.

Deficient Contractility may result from a long tedious Labour, or general debility. Mortal adhesion is generally due to previous Myomata, or other disease in which lymph has been effused, thus blending the Placental & uterine surfaces.
Do thoroughly, as to necessitate, in some cases, a peeling process to separate them. An instance of this kind occurred just recently in my own practice. It must also be remembered that independently of any of the above causes, there is frequently considerable haemorrhage in the last stage of labour. Should the uterine remain firmly contractions, the pulse & facial aspect keep good the need not be alarmed. Occasionally in such cases there may be a large quantity of blood & liquor Amnii, collected which may be expelled in a gush by any movement causing tension of the abdominal muscles.
Symptoms of Post Partum Haemorrhage

The most frequent symptoms external bleeding, with the general effects ensuing thereupon.

If the uterus be retracted or in a very dilatable condition, or the os uteri be blocked by a clot, there may be internal haemorrhage if the uterus may have the general symptoms only, with the exception of a feeling of the hollow abdomen which may in some cases be as large as before delivery, and soft and fluctuating, giving a groaning sound on pressure. There may be intense pain on an entire absence of it.

The general symptoms indicate:

1. Death, internal bleeding
2. Facial aspect is changed, being
Pinched looking, colour changes to greenish white (palor), faint vision becomes dim, patient calling out that she cannot breathe, clammy sweat, pulse rapid, feeble, unsteady. Preceded in some cases by what is termed the 'Hemorrhagic Pulse,' retching, & coldness of the extremities. Respiration is quick, becoming sighing, then gasping, jamaing & collapse.

The external pain is less serious. Yet more alarming, for in addition to the appalling general symptoms cue may have in a few moments the bed & flour literally deluged with blood, frightening the attendant who may add to the fearful scene by their cries of panic.

Instead of the contracted arteries being felt behind the
Pulhes, we find a placid
humour resembling an india
rubber bag. Authors are
divided in opinion as to the
gravity of the case when there
is alternate relaxation & con-
traction, some holding that it
is a most dangerous symptom,
others asserting that it is
an effort of nature to effect
contraction.

With inversion, we have, in
addition to most of the symptoms
above enumerated, dragging pain
in the back, elias; if the movem-
ent complete the mucous organ
will protrude through the bulge.
Partial inversion may induce
a polypus, and can be distin-
guished from it by attempting
to pass the inteme sound,
which can shall proceed in doing
if it be the latter, whereas in
Partial immersion we find
a circular shallow cavity.
The quantity of blood that
may be lost without proving
fatal varies very much 
with different individuals, & the
same difference exists as to the
after effects of hemorrhage.
Should the patient survive,
arterioids, other tumours, laterine
episioes generally give rise to
a more or less continuous
current, & can be discovered 
by a careful examination.

Treatment of P.P.P. Hemorrhage

Preventive treatment has already
been described under the head
of “Precautonary Measures”, so I
need not he repeated here.
Active treatment—This must
he prompt, decisive, energetic,
According to a preconceived definite plan, — for a few moments to delay or one blundering step may cause the death of the patient. No time should be lost in placing the patient on her back, the pelvis being high & her head low. Then case Cervical traction & Pressure on the uterine (a la Credé) to excite Contraction; ergot should be administered hypodermically or by the mouth; internal manipulation must also be resorted to, & if Clots, Membranes, or a portion of the Placenta be present these should be carefully removed, lest where it is possible & safe to allow the hand to remain until it is expected this should be done. Ice to the interior of the uterus, & also externally, for
a brief period, or the cold douche applied to the abdomen or external organs of generation will rapidly produce a beneficial effect. This must not be continued too long however, particularly with debilitated patients. In addition, losing its power of exciting contraction it is very deplying Dr. Atchell has recommended that hot water at 110° F. should be injected into the rectum when the patient is weak and anemic. Others have recommended the alternate use of hot and cold sponges dipped in vinegar or other astringents or astrigents have been placed in the vagina & may sometimes be of service. Compression of the aorta takes the abdominal wall or from the interior of the abdomen has
been advocated by some, while others condemn it & prefer pressure on the Vena Cava, asserting that the principal source is from that vessel. It appears to me that pressure on both might be advisable in desperate cases, giving the patient time to rally & the practitioner time to consider his position. If the bleeding is not copious it may sometimes be arrested by attempting an injection composed of equal parts of mixture of Manna & glycerine, in irregular or hour-glass contractions if the symptoms are not urgent a dose of opium should be given, this will in many cases relieve the tension after a brief interval. Should the haemorrhage be severe the hand should be anesthetized with chloroform.
administered to the patient, then as soon as relaxation takes place the placenta should be extracted.

Having been noticed that the convulsions occurring in parturition frequently hastens the labour, they readily excite uterine contraction, some practitioners have endeavored to imitate nature to get the same effect by the administration of speculum. In complete inversion the rectum & bladder should be emptied, Chloroform administered, & if there is a possibility of delivering the placenta with the uterus that should be attempted.

If that cannot be effected the placenta should be carefully separated, after which an effort should be made to reduce the inversion by grasping the fundus and
applying steady pressure upon it yesterday. To avoid the vacuum
S. Dodgeroth of New York has introduced a scientific technique
method as follows:—Counter
Pressure being kept up outside
the vesicle, by one of the obturati
is to be felt for, a steady force
made upon it with one finger.
The interior walls being taken at
this point, a depression is
soon made which if followed
up will cure long curves. Reverse
by the entire organ. Most of
the cases treated in this manner
are said to yield.

Should one meet with an
obstinate case, an air passing
should be introduced as recommend
by M. D. Simms, after which
another attempt at reduction
can be made, failing which
incisions into the cervix should
ile made to relieve the constriction or continuous and steady elastic pressure may be made.

When resection is completed the hand should be allowed to remain in the uterus until the face by external pressure and friction induced contraction.

Lacerations, fissures, fibroid and polypous should each have their appropriate surgical treatment. Adherent bill partially enveloping placenta causing haemorrhage must be removed by passing the hand into the uterus, entirely peeling off the adherent portion from the uterine tissue, care being taken not to tear the latter. If the bleeding is due to the rupture of a varicosae vein, a styptic with pressure should be applied.
In some cases stimulants are necessary, and should then be given freely, with small doses of opium. In extreme cases, ammonium has been injected into a vein with good results. Injection of ether into the cellular tissue of the abdomen has been reported as efficacious. Salvarsan is also a powerful agent. One electrode should be applied internally to the rectum, and the other to the abdominal wall. If the heart's action appears to be failing, an electrode should be applied over the cardiac region and the other over the centre of the phrenic nerve. By adopting this treatment, I was on one occasion enabled by the help of Providence to save a patient in whom, it appeared to be extinct, from harm.
Occurring until adherent plaques.

The child should be applied
placed to the nipples as soon
as possible, or the breast
should be applied to irritate the
breasts & set up reflex action.

Plugging with an air pessary
was advocated by Daniel Reed.

Consider this worse than useless.

Failing in success by any
of the above means, we still
have most potent agents in the
Persulphate & Peroxide of

Unfortunately, however, the use
of these styptics is accompanied
with great risk as in some
instances Coagulation has extended
into the general Circulation.

Some of the fluid has been
noticed to escape through the Fallopian

Lupus Causing Death by Peritonitis.

Notwithstanding these dangers,
This mode of treatment is quite
Justifiable as a last resource, when on the one hand we have rapidly approaching death a certainty & on the other a possible accident, Dr. Barnes who was one of the first to give this line of treatment a trial in Great Britain thus describes it:—Set up the Heyman syringe adapted with an extermine tube & 9 inches long. Into a deep basin or shallow jug, pour a mixture of four ounces of the liquid Perchloride of Silver of the British Pharmacopoeia & twelve ounces of water. The suction tube of the syringe should reach to the bottom of the vessel. Pump through the delivery tube twice or three times to expel air, & assume filling of the apparatus with the fluid before passing the extermine tube into the uterine.
This guided by the fingers of the left hand into the os uteri, should be passed up to the guardia. The injection should then be effected slowly and steadily when you will find the fluid come back into the vagina mixed with coagula caused by the action of the fluid. The haemostatic effect of the liquor is produced in three ways: first there is its direct action in coagulating the blood in the mouths of the vessels; secondly it acts as a powerful astringent on the inner membrane of the uterus, strongly corrugating the surface and thus constraining the mouths of the vessels; thirdly, it often produces some amount of contractile action of the muscular walls. The haemorrhage having been
Arrested, our patient will need long continued careful nursing and absolute bed rest in the position before decided, must be maintained for some time. When the patient has commenced to improve, the amount of stimulants must be decreased. Cool or lukewarm food and drinks should be given frequently but in small quantities. As soon as sleep is permissible, that should be allowed with careful watching. Better tonics are more beneficial. Diet may be given at a later stage.

Should precordial oppression or headache accompany reaction, calms and ice will be found beneficial. There are some extreme cases in which a patient may be dying from loss of blood. These are suitable to
rally by any ordinary means; in such cases transfusion has been resorted to.

There are three principal methods, two being immediate and one medium. In the immediate process there is direct communication between the patient and the blood given; for this purpose Dr. Russell of Geneva has devised an ingenious apparatus which appears to be rather too complicated for such an emergency as it is intended to meet. A more simple and equally available apparatus is that described by Dr. Avellin in the Philosophical Journal of the Society of Transactions for 1845. It consists of two small silver tubes to enter the vessels, $\&$ of an india rubber tube by which they are united, $\&$ which has at its
Centre an elastic receptacle, holding about 2 drachms. It is without valves, & is fitted a continuous pipe with an expanded portion in the centre. By its means, the vessels are at all times, extended from one to the other, and a supplementary heart is added to regulate the circulation.

Before the two ends are introduced all air must be driven out of the apparatus by passing an alkaline or saline solution into it. The tube is then passed into the vein of the giver, & as soon as the fluid commences to course the other tube must be inserted into the vein of the receiver. The tube should then be placed on the bloodgivers side of the receptacle & the stream propagated
Towardsly by steady pressure into the patient's arm. This being done, the tube is pinched on the other side of the bulb to allow the receptacle to fill again by suction. This procedure must be adopted until 5 to 10 ounces are transfused. In intermediate transfusion the blood is reconcentrated into a bowl and then whipped until the fibrin has become separated; or in place of the defibrination a few drops (three to each ounce) of ammonia may be added as suggested by Dr. Richardson, or the solution of phosphide of Coda as recommended by Dr. B. G. Stit. If blood serum is obtained, it can be made slightly alkaline by ammonia or by carbonic acid of soda; may be used at a temperature of 98°.
If Dr. Little's solution is
practicable that may be tried
in the absence of blood, the
formula is as follows:
Chloride of Sodium 40 grains,
Chloride of Potassium 5 grains,
Phosphate of Soda 3 grains,
Carbonate of Soda 20 grains.
(Distilled water 20 ounces.)
Whatever solution is
made use of, it can be
introduced by one of the
forms of syringes, or by grafta-
tion from a height through
a glass funnel (which) care
must be taken to prevent air
entering the patient's veins. A
much larger supply of any
of the above solutions is
needed than if used to bleed,
done asserting that 60 or
70 ounces is not too much.
A large number of successful
Cases have been recorded, & although there have been many failures, I am not aware of any deaths having resulted from the operation. I therefore hope that this treatment will be more widely adapted in Cases successfully treated for it.

Prognosis

Prognosis will depend on the patient's symptoms; other things being equal the gravity of the case will depend on the amount of haemorrhage & the cause. Some women however can ill stand the loss of a moderate quantity of blood - our prognosis in such cases therefore is guarded. In the usual cases death may occur in a few minutes.
before anything can be done to save the patient, in demission, with imperceptible pulse, cold extremities, in prostration, pallor, more especially in convulsions, frequently indicate a speedy termination in death. In less severe cases where we can arrest the hemorrhage really the patient may be more hopeful. In hemorrhage from laceration the prognosis is generally favorable, in that from varices has always been poor.

Prof. A. R. Simpson in his "Contributions to Obstetrics and Gynecology" page 91 quotes a Case of slight antepartum hemorrhage where the patient died from "exhaustion attendant on the process of delivery & the consequent failure in the action of a feeble jelly heart"
Now much greater need have
use then will the above Con-
ditions of Post-Partum
Hemorrhage added there to ?
Prof. A.R. Simpson (Page 83)
has called attention to the
Remote results of Hemorrhage.
He mentions the risks of
insanity, Phlegmasia, Enteritis,
Pelvic & other inflammatory
affections, &c. 

These remote
risks certainly appear to have
been overlooked by most
authors.
Testimonials.

From Sir Robert Christison, Bart., M.D., F.R.S.;
Late Professor of Materia Medica, University of Edinburgh; formerly Professor of Clinical Medicine, and Physician to the Royal Infirmary; late President British Medical Association.

Edinburgh, August 2nd, 1877.

I certify that Mr. George LeFevre was a most diligent student while attending the Medical Classes of the University of Edinburgh; and that, from his appearances in examinations, and the opportunities of practical instruction he has enjoyed, I am satisfied that he is well qualified to enter upon medical practice in any position of professional trust.

R. CHRISTISON.
From William Rutherford, Esq., M.D., F.R.S.;
Professor of Physiology, University of Edinburgh; Examiner in Physiology, London University.

The University, Edinburgh, August 4th, 1877.

I have much pleasure in bearing testimony to the fact that Dr. George LeFevre has, at this University, pursued his medical studies with an earnestness of application, and with a display of ability that have obtained for him high respect, and that augur well for his success in the future.

In addition to excellent abilities, Dr. LeFevre possesses that courtesy of manner which is an indispensable qualification for the attainment of success in medical practice.

I am persuaded that Dr. LeFevre is worthy of all confidence; and I heartily wish him God speed.

William Rutherford, M.D., F.R.S.,
Professor of Institutes of Medicine.

From Joseph Lister, Esq., M.B., London;
F.R.S's., London and Edinburgh; Surgeon to King's College Hospital, London; late Professor of Clinical Surgery, Edinburgh University; Lecturer on Clinical Surgery, King's College, London.

9 Charlotte Square,
Edinburgh, 27th July, 1877.

Mr. George LeFevre served both as dresser, and subsequently as clinical clerk, under me in the Royal Infirmary of Edinburgh. He discharged his duties in a manner that gave me great satisfaction, and proved that he possesses that love of his profession, which is the great secret of its successful practice. Mr. LeFevre is now about to receive the degree of Bachelor of Medicine from this University; and being of excellent moral character, he will, I believe, prove a trustworthy practitioner.

Joseph Lister.
From John Chiene, Esq., M.D., F.R.C.S.;
Lecturer on Surgery, Royal College Surgeons, Edinburgh; Assistant Surgeon to Edinburgh Royal Infirmary.

21 Ainslie Place, Edinburgh, August 29th, 1877.

Mr. G. LeFevre, M.B. and C.M., has had excellent opportunities of gaining practical knowledge of surgery in the Surgical Wards in the Edinburgh Royal Infirmary. He was an attentive pupil at my class of practical surgery last summer. I have, as far as I am acquainted with him, always found him most anxious to learn; and I believe he has that knowledge which will enable him to practice his profession with satisfaction to himself and for the welfare of the patients.

John Chiene.

From Allen Thomson, Esq., M.D., LL.D., F.R.S.;
Professor of Anatomy, Glasgow University; formerly Professor of Physiology, Edinburgh University; President British Association.

University, Glasgow, July 31st, 1877.

I have much pleasure in expressing the very favourable opinion which I formed of Mr. George LeFevre, during an acquaintance of several years, when he was a student in my classes at this University. Mr. LeFevre paid great attention to his studies, and has passed through a very complete preparation for the practice of his profession. I have no doubt that he is fully qualified to undertake its duties, and I feel sure that his gentlemanly bearing and amiable disposition will materially contribute to his success.

Allen Thomson, M.D.
From ALEX. R. SIMPSON, ESQ., M.D.;
Professor of Midwifery, Edinburgh University; Physician to Edinburgh Royal Infirmary; President of Edinburgh Obstetric Society; Physician to Royal Maternity Hospital.

52 Queen Street, Edinburgh, July 27th, 1877.

I have much pleasure in testifying to the excellent moral character Mr. LeFevre has borne as a student in this University, and the talent and industry he has displayed. He has passed his graduation examinations with credit, and will be found well qualified for all the duties of his profession.

ALEX. R. SIMPSON.

(Professor Simpson was Acting-Dean at the final examinations of the year in which I graduated.—G. LEF.)

From DOUGLAS MACLAGAN, ESQ., M.D.;
Professor of Medical Jurisprudence; Professor of Clinical Medicine; Physician to Edinburgh Royal Infirmary.

University of Edinburgh, August 1st, 1877.

I have much pleasure in expressing my favourable opinion of Mr. George LeFevre, M.B. and C.M. of this University. Mr. LeFevre was a very zealous and attentive student in my class of Medical Jurisprudence (1875). He also acted under me as a clinical clerk in the Royal Infirmary during last winter, and discharged the duties of his office with great earnestness and efficiency. From my personal knowledge of Mr. LeFevre, I am enabled confidently to express my conviction that, in any field of professional work on which he may enter, he will prove himself to be an efficient and trustworthy practitioner.

DOUGLAS MACLAGAN.
From Thomas Grainger Stewart, Esq., M.D., F.R.C.S.;
Professor of the Theory and Practice of Physic; Physician to the Royal Infirmary; Professor of Clinical Medicine.

19 Charlotte Square, Edinburgh, July 28th, 1877.

I have much pleasure in certifying that Mr. George LeFevre is well known to me; that during his whole career as a student in this University he has been an earnest worker, and has sought in every way to prepare himself for thorough efficiency in his professional work. From his attainments, as well as from his ability and his personal character, I am satisfied that, wherever he may practice his profession, he will take a leading place.

T. GRAINGER STEWART, M.D.,
Professor of the Practice of Physic.

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From James Spence, Esq., F.R.S., F.R.C.S.;
Surgeon in Ordinary to the Queen in Scotland; Professor of Surgery, University of Edinburgh; Surgeon to the Edinburgh Royal Infirmary; Surgeon to the Royal Dispensary, &c.

University of Edinburgh, July 27th, 1877.

I have much pleasure in stating that Mr. George LeFevre was very favourably known to me during his studies at this University. He was a most zealous student; and, from what I saw of him as a pupil in my class and in Hospital, and from the good appearance he made at his final examination for the degrees of M.B. and C.M., I consider him as well informed in his profession, and qualified to practice it successfully.

JAMES SPENCE, F.R.S., F.R.C.S.,
Surgeon in Ordinary to Queen for Scotland, Professor of Surgery.
From A. Wood Smith, Esq., M.D., F.F.P.S.G.;
Lecturer on the Theory and Practice of Medicine and Clinical Medicine; Physician to Glasgow Royal Infirmary, &c.

5 Newton Terrace, Glasgow, July 31st, 1877.

I have known Dr. George LeFevre since his arrival in Britain, four years ago, with the object of joining the ranks of the medical profession. He at once entered on his studies with such earnestness and business-like habits, that now he has fulfilled the bright expectations I formed at the outset of his medical curriculum. I feel assured that Dr. LeFevre is eminently fitted to meet the demands of a medical practice with kindliness, skill, and good common sense—qualities which will prove a blessing in any community among whom he may practice. Dr. LeFevre will leave Scotland with the good wishes of a large circle of friends.

A. Wood Smith, M.D., F.F.P.S.G.

From D. Wilson, Esq., M.D., F.R.C.S., Edinburgh;
Examiner Royal College Surgeons, Edinburgh; Medical Officer Royal Dispensary; Vice-President of the Obstetric Society.

12 Dean Terrace, Edinburgh.

I have much pleasure in expressing the very high opinion I entertain of Dr. LeFevre's professional qualifications.

Dr. LeFevre was a pupil of mine for three months of the session '76-'77, when he was distinguished by the zeal and intelligence with which he discharged his professional duties.

Since then I have repeatedly applied to him to assist me in professional work, so that I feel the greatest confidence in recommending him, feeling assured that he will discharge the duties he may undertake conscientiously and well; and he has my best wishes for his success.

D. Wilson, M.D.
From David Grant, Esq., M.A., M.B., C.M.,
Assistant to Professors of Clinical Medicine; Resident Physician,
University Wards, Royal Infirmary; Ettes Prizeman, Edinburgh
University, 1876.

Royal Infirmary, Edinburgh, July 27th, 1877.

I have known Mr. George LeFevre for a considerable time as one
of the most enthusiastic students attending the medical classes of the
University here; and I have recently been brought into more intimate
connection with him as a clinical clerk in the wards under my charge.
I am therefore in a position to bear testimony to the energy with which
he has throughout pursued his medical studies, and to the abundant
success with which that energy has been attended. He has not only
studiously availed himself of the opportunities afforded him by lectures
and class attendance, but has also devoted himself—and that more par-
ticularly—to the acquisition of the more valuable knowledge, and
still more valuable mental training which are to be gained by persistent
work in such a Hospital as this.

He has consequently gained qualifications which will, in my opinion,
fit him for the discharge of responsible duties in any branch of the
profession.

David Grant, M.A., M.B., C.M.,
Assistant to Professors of Clinical Medicine.
From John Young, Esq., M.D., Edin.; L.R.C.S., Edin.; Fellow Royal Society, Edinburgh; Fellow Geographical Society; Professor of Natural History, Glasgow University; formerly Assistant Physician Royal Lunatic Asylum; President of Section British Association, 1876.

University of Glasgow, July 3rd, 1877.

I have known Mr. George LeFevre since he came to Glasgow to study medicine in 1873, and though, latterly, he continued his studies in Edinburgh, I have kept up my acquaintance with him and have known what he was doing. I did so because I had the highest esteem for him personally, and because I looked to see him take a distinguished place in the profession, wherever he might ultimately settle. He is now about to return to Australia with his degree from Edinburgh University, and I feel assured that his future career will reflect credit on both the Universities in which he received his education. I shall always esteem it a privilege to be able to contribute to his success, if it is in my power to do so; for I have known few better students, and very few better men.

John Young, M.D., Edin.,
L.R.C.S. Ed., F.R.S. Ed., F.G.S.