I have chosen the subject of hydratides of lungs for my thesis on account of its frequent occurrence in the practice of every Australian physician. From the fact that there is still considerable difference of opinion in the method of treatment which is most likely to prove successful.

The origin of this parasite in the body is of great interest to all students of medicine, but at present we must be content with the investigations of Reichenow and others, which show that there is a parasite in the intestines of the dog, which if introduced into the human body, will develop into hydatid cysts. Some observers maintain that a parasite which infects the liver of sheep will also develop into hydatid cysts when introduced into the human body.

The generally accepted theories as proceed with regard to the
Introduction of the use of these parasites into the human body, as
through the medium of drinking water to which sheep
and cattle have had access, or through the medium of dust
especially in sheep dipping yards, or from roads over which
sheep are constantly being driven.

There seems to be some strong
preconceit that these diseases in sheep
and cattle are of some engaged
about. Sheep yards a
central point to be
liable to suffer from diseases
in the lungs, probably through
inhalation. The disease containing
the root of these parasites
than in "lung" tissue part of
the body, as there are
merely "wet" cases. These cases
we know about them, but this
case is more particularly
intended to pursue the study
of the disease or treatment
of this details.

We are compelled to admit
that there is only one symptom
absolutely pathological. If
the existence of hydatid in
the lungs, as that is the presence
of cysts, fragments of cysts,
the "hooklets" in the Opuntia,
but as these are not seen till the second stage of the disease, when microscopic examination reveals the presence of the disease beyond all doubt, we must rely upon a thorough physical examination of the chest when we arrive at our diagnosis by a process of exclusion.

The symptoms depend on the stage of the tumour. The life depends little importance in the early stages owing to the accommodating power of the lungs, which will allow the tumour to occupy a third or even more of one of them without causing any marked or disturbing symptoms beyond a slight shortness of breath. As the growth increases, he feels more or less characteristic symptoms due to pressure, such as difficulty of breathing and pains on the affected side; frequently cough.

Cough so invariably present at first dry and hacking but as the tumour increases the cough becomes more frequent and
paroxysmal, especially on any exertion. At this stage we generally find a dusky tint of the skin due to the impeded circulation through the lungs, a consequent concretion of the blood occasionally. We get haemoptysis more or less severe but this is rare. The expectoration is sometimes stained with blood but not frequently. We often mark pulmonary cedematous, as for instance, test of flesh occasionally. Eight creases tough with a more or less persistent expecoration, haemoptysis a cachectic appearance. Occasionally hyperthermic depressions of the fingers. These latter symptoms are more marked when the disease is complicated with phthisis, but I have been several cases where they were all present. After stopping this appeared entirely. Dr. Little says "the diagnosis from tuberular phthisis will be many cases solvable before impossible, unless the phthisis is advanced or while it is discoverable in
the opium, so long as the case remains sub-acute, the physical signs simply indicate consolidation. Rousseau says that "In general, patients affected with hydatids of the lung present slowly, in the cutaneous and physical signs of hydatidosis a chronic pleurisy. In fact, the majority of this class of patients will tell you that they have been subject for a long period, to hemoptysis more or less profuse a few or two pleuritic as well as to oppression of breathing." Supplemented by the accounts of Richet and others who have written on this subject, but from the rarity of the disease in Europe and consequently having been a very limited number of cases, but one of them has shown clearly any characteristic or distinguishing symptom by which we could diagnose with any certainty, a hydatid cyst of the lung in its early stage, before rupture of the case latter place.
Mostly not all observers are agreed that hydatid cysts of the lungs when more frequently in the right than in the left lung, I seem to have a preference for the laces rather than any other part. And also that there is generally only one cyst present. But this is not always the case, as more cysts may be present, it either being a sin any dilatation or in both lungs to.

Dr. Wallace says that "when they originate near the root of the lung, a moderate dilatation elsewhere they generally approach the chest wall in the lateral direction."

The hydatid act as a rule, is included in the pleural cavity of the lung if it is rarely we find it situated in the pleura or mediastinum, but occasionally we do find a cyst in the pleura or in the pleural cavity, when it first probably originated in the lung, substance of has been forced or dropped into the pleural cavity, as in the case related by Dupuytren.
The cysts may grow to a great size according to the capacity of the child, and when opened have been found to contain as much as four points or twice if fluid, but if the patient has suffered much from difficulty of breathing a cough they seldom grow to such a size, but burst from the constant irritation set up on one of the bronchi or the pleural cavity, before they have attained half this size.

There is some difference of opinion among medical men concerning the cyst wall. Bonnycastle remarks that "pathological anatomy has taught us that the adventitious envelope may be either very thin or altogether wanting; that an acute inflammatory of the lung may cause them to burst, filling into the lung where they produce the symptoms of hydrothorax, or into the bronchial tubes, in which case they may be expectorated either in sheets or in their totality."
Mr.科创 also says, "The absence of the adventitious cyst or the existence tenuity of the envelope by which the cyst is constituted likewise explains how hydrated tumours of the lung may become ruptured under the influence of an inflammatory affection of the respiratory apparatus." Brand de Vellex observes "that the further the alveolar cyst sometimes lies in direct contact with the lung, the more like that of the air cells is it, rarely surrounded with a thick shell or cyst-like wall. By proceed alveolar tissue." Moutreliee observers have found this to be the exception rather than the rule, except in very young subjects, or where little tissue has been little or no irritation. When the investing cyst is occasionally adhesions of tissue being found evidently by inflammatory exudation. It has generally been noticed in this country that where the cyst attains the size of a small mandarin orange, the adventitious envelope begins to thin, and that cysts which attain a large size of burst,
invariably presents a thick tough investing envelope. The lung tissue immediately surrounding the cyst is more or less solidified, but not irreparably so, as is shown by the complete restoration of the patient's health after evacuation.

The physical signs of a moderately large, hydrated cyst of the lung very closely resemble a case of pleurisy, but in the latter we have a history of pain and a febrile attack, which is the only symptom we can find to negative pleurisy in some cases of hydatid. The symptoms we have are as follows:

1. As to shape & size - the thorax is seldom altered till the cyst has attained a large size, when according to Browne - "on examining a patient you find a globular mass inside the chest of titivated feel - the probability of the case being one of uniliated hydatid is greatly strengthened."
This globular depression is rarely seen in this vicinity as the case is generally diagnosed before the chest has obtained such a size as to cause the depression. In the early stages of the disease one seldom notices any difference in the measurement of the two sides of the thorax. 2. Total movements on the affected side are more or less deficient, especially that of expansion. 3. Vascular pulsations is absent in most cases over the site of the tumor. 4. Percussion reveals absolute dullness in the area of dullness always presents a concave outline. This area may be most accurately mapped out as is unaltered by position immediately behind the area of dullness the percussion sound is perfectly normal. The general situation of this dullness is in the lateral region of the thorax but occasionally it is situated in the infra-clavicular region. 5. Respiratory sounds are entirely absent over the area of dullness.
but are audible immediately beyond the line of demarcation. Though they may be harsh in character.

6. Vocal resonance are absent over the area of dulness.

7. The vibratile thrill of fluid can occasionally be detected. With the above well marked ecchymoses & a history of a chronic enlarging lesion in the vicinity, causing little or no pain, a clot preceded by any marked ecchymose. We are led to the conclusion that we have a hyaloid cast of the lung to deal with.

Should the case not be diagnosed in its earlier stages, or neglected for some reason till it has attained a large size, we will probably find it much more difficult of diagnosis, as it may then become complicated with other diseases & we may overlook the real cause of the ecchymoses till suddenly the peribustal & reveals to us the real nature of the complaint. It may be complicated with pleurisy
or with obstrinate bronchitis or with pneumonia, when we get the characteristic speck which too often has mislead careless observers. The cne may burst into a bronchus or through the pleura into the pleural cavity or if adhesions are formed between the pleura and the diaphragm into the abdominal cavity. According to the manner in which the cne bursts and discharges itself we have a train of painful and distressing symptoms, which often lead to a fatal issue.

If the cne bursts into a bronchus we are of course no longer left in doubt as the microscope at once reveals the presence of the broken and the shreds of the cne wall. It was thought at the time the most probable thing to happen was for the cne to rupture into a bronchus and thus be discharged, but more extended experience teaches us that such a result is only too often followed by distressing symptoms, most unfrequently ending fatally.
the patient sinking from exhaustion.

The difficulty in accurate diagnosis of the disease arising from the great similarity in the symptoms between it and some other diseases as for instance a. Phthisis which presents a similar train of symptoms especially when the Hydatid Cyst is small. And further Hydatid Cyst of the Lung a Phthisis often-feverish when it is almost impossible to say with certainty whether the symptoms are due to Hydatid or Phthisis or to both. This is especially the case when the Cyst is situated in the apex of the Lung. From this it becomes very important we should diagnose the presence of a Cyst in persons predisposed to Tuberculosis. For the irritation of a Cyst usually often to be the cause of Phthisis starting in a person so disposed. If we have anything like strong grounds for suspecting the presence of a hydatid
cyst in a person, previously
b. Pottis, we consider he
are justified in making
an exploratory puncture,
as it has been frequently
proved in such cases that
the progress of the pleurisy
has been arrested by this means.
b. Localised pleurisy, a localized
abcess of the lung (present
or really the Curtis Cystostones
as hydatid cyst of the liver,
the only distinguishing
Cystostones being the fluid
of the disease, which in
pleurisy, a abscess is
favorably inserted in by
means of a spine). The diagnosis
is not so important in
these cases as we treat them
all in the same manner.

A hydatid cyst situated
in the hepatic a back part of
the liver has been frequently
mistaken for hydatid cyst
of the base of the right liver
as it is not until laparotomy
has revealed the bile stained
fluid that the real seat of
the cyst has been discovered.

(1) Stied Turner of the liver
often present Cystostones Cistica
in hydatid cysts. If we are
in doubt I think the Ric Quirt
justified in making an
exploratory puncture.
Pericardial effusion has been
occasionally mistaken for
pneumonia, as it often presents
discreetly the same symptoms.
A puncture in these cases
would do no harm if great
care be taken as long known
in these cases reported in the
Australian Medical Journal.
Treatment—After a correct
diagnosis gives the Treatment
he can lay claim to the
curset being more fully
investigated in this country.
Treat in any other way; this
present. Very few of the
European writers mention
anything about Treatment.
Those who do simply
recommends a few internal
remedies which are presumed
to have the effect of destroying
the life of the cold-livered;
and a few few recommend
puncturing the lung or any
other decided terms sufficient
to justify an inexperienced
practitioner in resorting to
this mode of treatment.
The majority of writers if
they undertake treatment at
all, tell us that treatment
is useless if the disease should be left alone to take its own course.

Some few who profess to have had considerable experience have written on the good effects of certain drugs. Such as the Phosphide of Poison, Phosphide of Arsenic, Phosphide of Cadmium, &c. &c. 

I have seen all these tried, but have seldom if ever found any decided beneficial results follow their administration.

With operative interference they may assist slightly but without operative interference, they may be said to be altogether beside the destruction of chilicercal life. For these drugs have any effect they must be given in such enormous doses as to produce a length of time that few if any would feel justified in relying on them alone.

ะearing is undoubtedly the safest method of treating, judging from the experience of Australian Surgeons & of those European Physicians who have practiced it.
Fraping should be performed at the early stages of where the eye has not been the seat of any inflammatory disturbance. There are several pieces of importance in tapping which should not be forgotten. The Tweak should be very fine, just less than three centimeters in length. It should be made of the best steel and it is most essential that the point should be very sharp or otherwise it may pull the investing coat, which is often very tough, beneath it.

In introducing the Tweak it is advisable to make a small incision in the cheek over the centre of the cheek of the child, as it is at this point we will generally find the eye to approach nearest the surface of the Tweak. The Tweak should be turned in firmly till fluid is free with taking care to avoid the main branch of the vessels. After the eye has been tapped a little partially or wholly emptied the question which should
Anything further to do? I think most practitioners in this country are agreed that nothing further should be done of an operative character for any further interference, e.g., inserting parasitic fluids passing galvanic currents through the cyst or leaving in a drainage tube, only tend to convert a simple into a dangerous operative. Generally once tapping is sufficient, and it is very seldom we find a cyst refills. The after treatment consists in keeping the patient perfectly quiet in bed for about a week, administering some of the drugs previously mentioned, for two or three months.

A few cases have been recorded where in tapping, the sputum has pierced through a bronchus, and after a few venous fluid have passed through the canal, the fluid suddenly bursts into the pierced bronchus and causes the most violent paroxysmal cough, followed by expectoration of cystic fluid, which ought result-
in effusion.

This fortunately is of such rare occurrence that it should not prevent us doing the operation, especially in cases which are diagnosed early, as those reported occurred in older cases, where the lung was greatly compressed by the large growth of the cyst.

When the cyst has ruptured into a bronchus without operative interference, it is best advisable to use any operative measures unless the cyst is very old, a large adherent little chest wall or if we think the patient is not strong enough to bear the surgical treatment consequent on the long time it takes for the expulsion of the cyst by expectoration.

If we meet with such a case the best treatment is probably to make a free incision with antisepctic precautions between the ribs and introduce a large drainage tube. When the thoracotome percutaneous cough and expectoration will both be relieved. This is undoubtedly the best treatment.
for old suppurating cysts of the lung, or for cysts in the pleura, where the cyst is adherent to the wall of the thorax.

The drainage tube is left in for a fortnight or three weeks, or the pleuræ can be washed out with carbolic or other disinfecting solution. At the end of two or three weeks the division may be enlarged if necessary, or the drainage shortened or removed. When the larger daughter cysts of the parent one will gradually be joined through the opening by the gradual expansion of the lung, as it returns to its normal state. The drainage tube is retained in the indwelling gradually shortened till all discharges cease or the lung becomes normal.

Tapping or incision should not be delayed once we are satisfied of the presence of inflation in the lung, as the results are best when the cure is unifically successful, whereas if left to themselves, although occasionally
we meet with cases which terminate satisfactorily, as a general rule the result is unsatisfactory.

There are some cases such as pregnancy where we are not justified in operating, but we must resort to the administration of drugs, as Clysode or Resinide of Potash, or Senna and the practice either through the stomach or by inhalation.

For a great deal of this thesis I am deeply indebted to the lectures and chemical teaching of my sincere friends Dr. Bird and Dr. Fitzgerald. Under their careful tuition I had the advantage of working out the details of a society the successful treatment of a great many cases, both in hospital & private practice.

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