Small pox. Inocul[illegible] [illegible]

~~In~~ The question of [illegible] [illegible]
exciting attention [illegible] now;
from the fact that the Anti-va[illegible] [illegible]
a hearing ~~by~~ ~~fr~~ ~~Royal~~
~~Commission is of the~~ [illegible]
~~fact matter~~, if it is evident an imp[illegible] [illegible]
expedient is upon [illegible]
As all eyes are up[illegible] it may
be interesting to [illegible] [illegible]
on the other sid[illegible] [illegible]
a people who ha[illegible] [illegible]
Inoculation for many centuries, to whom also Vaccination has been made known by foreigners, for nearly 100 years.
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In this article the following significance is attached to terms: (1) Inoculation means the direct ~~infection~~ insertion of small pox virus. (2) Variolous lymph means material gathered from a person inoculated (3). Humanised variolous lymph refers to lymph gathered from a person through whom variolous lymph has passed ~~& given rise to pustules~~. (4) Active & passive humanised variolous lymph are terms meant to indicate the degrees of fermen present in lymph so named.

Smallpox. Inoculation & Vaccination. Illustrations

~~The~~ The question of Vaccination is apparently exciting attention in England just now; from the fact that the Anti-vaccinators are obtaining a hearing ~~by from the fact that the Royal Commission is of their instance to investigate matter~~, it is evident an important scientific expedient is upon its trial.

As all eyes are upon the question, it may be interesting to know what is going on on the other side of the world, amongst a people who have known & practised Inoculation for many centuries, & to whom also Vaccination has been made known by foreigners, for nearly 100 years. ~~The date of the introduction of Jen~~

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Inoculation

Inoculation amongst the Chinese has been practised from divin antiquity, & ~~[illegible]~~ its origin is lost in mythical genesis. At the present day, & from ~~[illegible]~~ early times, three methods ~~[illegible]~~ of conveyance of the artificial production of small-pox are practised.

a). The scab from a dried small-pox pustule after being pulverised is blown up the nostril.

b). The clothes of a person suffering from small pox is worn by the person ~~[illegible]~~ to be infected.

c). The matter from a small pox pustule is inserted ~~[illegible]~~ beneath or in the abraded skin. By a mucous membrane, by the skin or by the circulatory system, directly from up the category of the process of inoculation. The result in every case is similar, provided the ~~[illegible]~~ process 'takes', except that in the last mentioned a special local pustule is developed in addition to the general eruption of pustules on the body, & it is from these special local pustules developed as the result of inoculation that variolous lymph is gathered for further ~~[illegible]~~ insertion.

Inoculation is only practised (by the Chinese) when an epidemic of small pox is actually in the midst of a community. At other times it is impossible to get the Chinese to listen to the benefit of ~~inoculation~~ preventive measures. ~~It is only a pattern for the Chinese government to imitate if they assume~~ But ~~even~~ Inoculation is a rare event. It is only when ~~the variolous lymph~~ the supply of humanized variolous lymph (vaccinia) has run out that the process is reverted to. In the community of Hong-Kong ~~[illegible]~~ even, when native, that is humanized variolous lymph is no longer available, the vaccinators (Chinese Doctors) will fall back on vaccinia matter, as supplied by foreigners, rather than employ Inoculation. It will therefore be readily seen that the same humanized variolous lymph may be used for years, may in fact have been brought to Hong-Kong when, (the Island was) first taken by the English, nearly fifty years ago. We have no knowledge from careful inquiry amongst the very oldest Chinese Doctors, of some of their ~~[illegible]~~ experiences ~~[illegible]~~ date from the peopled history of the Island, other than that they are dealing with the lymph then introduced.

~~The~~ In fact that what is now being

used

is passive not active lymph. The power of lymph is ~~believed~~ known to behave as do ferments, or with ferments there is a history of increased activity ~~to~~ gradually tending to decline & finally a loss of fermentative power ~~etc.~~ ~~etc.~~ 7 from what is observed as to the protective power of humanized variolous lymph ~~amongst the Chinese~~, a kin process of activity & passiveness is the only possible explanation to be advanced to explain the enormous prevalence of small pox amongst the Chinese.

When a Chinaman is asked if he ever has had small-pox he answers "not yet"; implying thereby his likelihood of catching it. He regards small pox in spite of all his ~~[illegible]~~ prospects practice of inoculation as one of the inevitables. (that he is almost bound to have it)

Hong-Kong in November & December 1887 & January & February 1887. there prevailed one of the worst small pox epidemics ever known. Suffice it to say that there was "known" to have died of small pox in Hong Kong in the month of December 1887 as many people as died of small pox in Britain ~~England~~ during the whole of 1887. The population of Hong Kong is but 200,000 equivalent the size of the Hull.

Moreover there was an epidemic in at least two large towns in England during that year.

What inferences are to be drawn from this statement? —: 1/. That true preventive measures against small pox, though believed to be known & practised amongst the Chinese, are neglected.

2/. That the lymph they are using is passive humanized, variolous lymph; i.e. lymph which, though fit to raise a bastard pustule has lost the power of protecting the subject against small pox, not only cow pox but that it renders no protection against a fatal issue.

3/. That preventive measures used in the height of an epidemic, at any rate as attempted by the Chinese, is useless to stay the death rate.

All this is easily understood when it is remembered that in Hong Kong they may be using lymph derived from a parent issue 50 years ago.

4/ Re inoculation & what we call re-vaccination is never practised; & from what we know of infant vaccination it would seem to confirm the belief that a single insertion in infancy is valueless for adult protection.

Vaccination

Vaccination amongst the Chinese, at any rate in Southern China, has been known ~~for~~ since the ~~commencement of the~~ end of the last century. The East India Company brought vaccine matter from India to Macao (a Portuguese ~~settlement~~ possession at the mouth of the Canton river) & vaccination was practised upon the Chinese there & at Canton. ~~It had~~ During the months that ~~the~~ a small pox epidemic prevailed, which it did annually with more or less severity ~~the~~ there was no difficulty in getting subjects, but when the scare was over the Chinese could not see the necessity for vaccination. Lymph became exhausted ~~some~~ ~~now~~ & again a fresh supply had to be obtained ~~from. This was brought from Europe by way of South America. Children were vaccinated & carried along with the doctors of the expedition sent out by the Spanish Government, on the eighth day on first group of children~~ ~~who~~ were vaccinated & so ~~the~~ in until the Expedition travelled from the Atlantic shores of the both Pacific shores of the continent. From hence vaccine matter was conveyed to Manila – the furthest

A fresh supply ~~could be~~ was obtained either from India or from Manila. Manila, the furthest outpost of Spain, was in the early days more in touch with the Pacific shores of South America than with the Asiatic littoral, so much so that vaccine virus was conveyed from South America to Manila to replenish the flagging out stock there. A long, long way breath its destination was the precious fluid carried. From Spain across the Atlantic & thence across the broad continent of South America & over the treacherous Pacific was the route chosen, without steam to aid its advance & the dense jungle tracks ~~delay~~ impeding its reaching its destiny. Such was the belief however in the efficacy of fresh vaccine matter as a preventative of smallpox, much the case

of his most Catholic Majesty for his distant subjects. The lymph was many times preserved on the way by ~~re~~ re-insertion so that by the time it reached Manila an active lymph was obtainable. From the ~~here~~ two sources enumerated was vaccine lymph introduced not only to Macao but to Canton. We read, that Ci-He-Tsua, a Chinese vaccinator was ~~employed~~ engaged in the practice of this art in the Hall of the British Merchants in Canton in the year 1800. Lymph was brought by the East India Company; ~~or supplied~~ replenished by Ci-He-Tsua's ~~forwarded~~ supply ~~other~~ enabling him to practice vaccination for many years. ~~[illegible]~~ ~~[illegible]~~ By this method vaccine matter was introduced to Southern China & the practice is now widespread.

Hong-Kong July 18 th 1889

My dearest

~~The Spanish Government carried~~
~~railway across South America~~
~~the~~

Re-vaccination & Re-inoculation.

As stated above Re-vaccination & Re-inoculation are not practised by the Chinese. During the epidemic of Small pox in Hong-Kong referred to above, two adult Chinamen only were to my knowledge re-vaccinated. These were ~~Christianized~~ educated ~~Chn~~ men of the most liberal type, but no such practice is thought of by the Chinese Doctors or the public. ~~Practically the the absolute reverse~~

Were we convinced that Chinese children were universally vaccinated we would have an excellent proof of the probability of infantile ~~vaccin~~ inoculation or vaccination for adult protection as judged by the enormous death rate. But whenever in the belief it is a fact that ~~vaccination~~ vaccination and inoculation are rather the exception than the rule except when an epidemic is rife.

Vaccine matter.

To Hong-Kong vaccine lymph is brought from England, & by each mail a certain number of tubes are imported.

~~We~~ Vaccine when, used at once
brought out during winter &
is generally ~~certain~~ active & reliable
but ~~Red~~ if imported during the hot weather ~~it kept~~
~~for~~ many tubes have to be thrown
away. Instead of bringing lymph
~~by~~ by the Red Sea Route we ~~use~~
(a cold transit)
~~the~~ Canadian Pacific route &
trying
hope to get an improvement in
our supply.
The most reliable lymph, such we have is the
Japanese calf lymph. It is stored
in fusiform shape tubes, sealed
with wax at each end. The Japanese
authorities allow of ~~the~~ the lymph, with Glycerine,
being mixed.

~~Practically it~~
It is thoroughly reliable, develops an
more scars & causes much constitutional
disturbance even in re-vaccinations.
We are also attempting the importation
of lymph from India, but the
experience of the Dutch in Java

who have already made the attempt & are
now days near India Gate we are here
does not favourably contrast one

with the possibility of success.
My own attempts with Cyanopsis
from India have not been successful.

Information supplied to the Sanitary Board concerning the method in practice amongst (or presumably Chinese generally) the Chinese in Hong-Kong, for the purpose of preventing small pox (variola).

Information was gathered from the Vaccinator at the Tung Wa Hospital ~~by~~ supplied to me by the courtesy of the acting Registrar General the Honourable Mitchell-Innes.

The main object of the enquiry is ~~to ascertain the method pursued amongst the Chinese~~ in some way to account for the extraordinary prevalence of small pox - Variola - in Hong-Kong during

the winter of 1887-8.

The ~~extraordinary~~ magnitude of the epidemic prevailing at that time is the more extraordinary, as the Chinese are known to be a people believing in, or practising vaccination or inoculation, rather to a great, if not to a universal extent.

The magnitude of the epidemic may be gathered by a glance at the death-rate, or when it is seen that Hong Kong with an estimated population of about 200,000 had in one month, December 1888, as many "registered" deaths from small pox-Variola alone, as occurred in (for the year 1887) that disease in England & Scotland, with a population of 33.000.000, ~~[illegible]~~ the reason for such an enquiry is plain.

In Britain during the year 1887 an epidemic of small-pox occurred in Sheffield & Northampton so that the figures show to the disadvantage of Hong-Kong still more pronouncedly.

Further the "Registered" deaths from small pox-&-varioloid-give only an approximate estimate of the ravages committed in Hong-Kong, as many small pox deaths have been purposely (in ignorance) concealed, & many persons suffering from the disease were known to have made their way out of the Colony to the mainland. The number of Registered deaths therefore is well within the actual number of deaths.

From the information supplied it is at once gathered that vaccination ~~does~~ ~~not~~ but a small ~~place~~ holds ~~a~~ place in the method employed by the Chinese. The word vaccination is derived from the word 'vacca' signifying a cow, so ~~that~~ and as cow pox has never been used as a source of lymph by the Chinese, the term is inapplicable. Inoculation is some derivative of the word must be substituted. All the lymph used is derived by the Chinese in the first instance from cases of actual small pox ~~was~~ Variola; cow or therefore vaccination and vaccine lymph are or were unknown quantities in Hong-Kong or China generally. Instead of vaccination we have therefore inoculation to deal with; instead of vaccine (a cow) lymph we have

lymph derived from variola
or small pox. ~~Observe the~~
Further direct inoculation, that is the
actual insertion of small pox
matter, is not practised to any
great extent, but what is
practised is that lymph gathered from
arms of children is used again &
again through a succession of
cases. To illustrate ~~it~~ the subject
more thoroughly we will inquire
that a person was inoculated
with matter from a ~~[illegible]~~ patient
suffering from small-pox very
twenty years ago. The person so inoculated
developed small pox it might
be to a mild extent. From ~~this~~ the inoculated
person, the second in the scale as it
were, lymph was ~~to~~ ~~a~~ collected &

inserted in the usual way into the arm of a third person. From the arm of the third lymph was taken & inserted in the arm of a fourth & so on to a fifth & so on. It may now, at the supposed interval of twenty years be being inserted into the arm of a 500th person. The original source of the lymph was not by inoculation from a small pox patient, but the lymph being used now has been humanised by passing through the systems of five hundred thousand persons.

It is plain therefore that the original case of small-pox-Variola pure variolous matter which became variolous lymph in the second person, & became humanised variolous lymph

or the third or such has been handed down to the present time.

~~vaccination, vaccine lymph~~ ~~Humanised vaccine lymph is therefore expressed by inoculation or variolization~~

The corresponding terms would therefore have follows ~~Vaccination~~ Vaccination becomes variolisation (inoculation) vaccine lymph or variolous lymph Humanised vaccine lymph .. humanised variolous lymph.

The methods adopted by the Chinese in inoculate is as follows.

1. The scab or crust formed on some one of the small pox (variola) pustules of a patient suffering from the disease is dried & kept for future use.
2. The dried scab is finely ~~powdered~~ pulverised & the powder blown up the nostril of the intended variolofer (vaccinifer)

3. The person so infected developes small pox - variola, it may be to a mild extent, & from the pustules developed in the course of the disease lymph is collected & inserted in the arm of a healthy person. Hence thus vaccinated (vaccinated) & the arm to arm method established.

Lymph is taken directly from arm to arm or kept in tubes for future use.

Nurse, arm or insertions are employed, sometimes on one arm sometimes on both.

~~Etc. In~~ Females as well as ~~males are vaccinated~~ submitted ~~to the process.~~ ~~(Females as well as males it is necessary to all persons are supposed to be~~

All persons, females as well as males (it is necessary to make this redundancy knowing how the Chinese regard women) are

supposed to be
submitted to the process.

The only reason for omission
the Chinese say
is where there are not sufficient
~~Practitioners to practise~~ variolisators.
(vaccinators)

The process is never repeated
that is re-variolisation (re-vaccination)
is not ~~done~~ practised.

The Chinese believe that deaths
from ~~the~~ small pox ~~occurred~~ result
~~by those not~~ from persons not
being inoculated or variolised.

~~Conclusion~~.

~~Inferences~~
~~Speculation~~ Nine Notes arising from con-
templation of the above information.

1st The enormous number of deaths
attending an epidemic of small
pox is at total variance with

the experience gathered from countries in which vaccination is practised.

2nd The absence of Re-variolisation (Re-vaccination) ~~since~~ many account for the small immunity granted as compared with vaccinating ~~countries~~ or Re-vaccinating peoples.

3rd The number of persons submitted to the process must be smaller than believed; that is the number of variolisations (vaccinations) ~~very small~~ are inadequate to the disease, however the small immunity arises

4th The most likely ~~reason~~ ~~Is~~ ~~Hardly~~ from the quality of the lymph used. It is an established fact that in vaccinating countries the original source, the calf, must be gone back to, if the lymph is to retain its power. That the ~~[illegible]~~

lymph which has passed through an infinite number of persons becomes valueless as a protection to small pox - (variola). Now we have no knowledge that the original source of inoculation is gone back to (inoculation) by the Chinese except under ~~the~~ exceptional circumstances; in fact, it is only when the variolous matter for ~~[illegible]~~ (in any town or district) (that) the parent source is resorted to. It is quite possible therefore that the lymph being used in Hong Kong now is twenty or more years removed from its parent source a variolous person.

From these considerations then one may gather the inefficiency ~~for~~ of the ~~lymph~~ process now being

practised in China.

1st. ~~The~~ a number of people are never submitted to the operation. The cause being it is 2nd absence of Doctors; but there ~~2nd. Re-insertion is never practised~~ can be no doubt that there are multitudes of anti-inoculation families & societies amongst the Chinese. Nothing can be more likely. Inoculation is prohibited in vaccinating countries by law; & the wisdom of the law is plain when it is considered that an inoculated person ~~can~~ develops small pox ~~in an infectious~~ first simple, & suffering from an infectious disease, becomes a source of infection to the neighbourhood in which he lives. The number of deaths arising from the combined practice ~~method~~ of inoculation must have been enormous & to an ~~inexpressible & superstitious~~ observant-

people like the Chinese ~~it must~~ ~~has~~ the baneful effects must ~~have~~ be apparent & it can well be understood that many if not most people would object to inoculation; (be it from the cow or from inoculation)

2nd ~~The~~ Lymph ~~vitre~~ after passing through a series of ~~tube~~ persons becomes weaker or weaker & affords less or less protection until finally it may cease to afford protection

2nd ~~at~~ all. It is well known that ~~vaccine~~ calf lymph passing through the ~~f~~ system of children becomes more active & the activity may augment ~~for~~ through a series of four or five persons vaccinated consecutively by lymph so derived. After a time the activity wanes ~~the~~ protective power against small pox becomes less & less so

inadequate does it become, that it is assumed to be valueless. The original source has to be fresh back to a calf lymph started afresh.

It is plain therefore that the lymph in use by the Clinic may be as it ~~stands~~ useless as a protection.

3: In vaccinating countries with presumably good lymph, that is lymph not too far removed from the parent source, it is found necessary to re-vaccinate at least twice ~~at two~~ say at the ages of 7 to 10 & 25 to 30. How much more therefore is it necessary amongst the Clinic who ~~are using~~ are using lymph which it may be believed is well nigh ~~all together~~ played out. to begin with

Practical Bearings.

1. In Hong-Kong it might be made punishable to practice inoculation. ~~remember that~~ the as it has been made clear that inoculation develops small pox, & that the inoculated individual becomes ~~the~~ a source of infection, so it is as bad to develope small pox artificially as to bring a person actually suffering from the disease itself into the midst of the community. The inoculated individual himself may escape lightly, but he ~~may~~ may be a source of infection by which numbers may be swept off. It is quite possible that the epidemic in question was caused by an inoculated person.

2. It is the duty of the Government to insist that calf lymph, or lymph having passed not more than once or twice through the humanizing

process, be substituted to Chinese Vaccination.

Finally one is driven to the conclusion that the ~~method~~ lymph ~~adopted~~ used by the Chinese is ~~not~~ valueless & all the more ~~to be~~ condemned as it gives a false protection.

These I believe to be the explanations of the terrible scourge of small pox which visited Hong Kong ~~[illegible]~~ a scourge yielding a death rate as high as recorded in any country during the present century.

Vaccination amongst the Chinese

We are often told that the Chinese are a vaccinating people & we are asked (from this standpoint along with many others) to admire the civilization & scientific attainments of these ancient people. ~~which~~ Printing & Gunpowder are the two other triumphs in their favor, but like their attainment in these, so in vaccination we find that the practical benefits accruing therefrom are held if not well nigh useless. Printing never got beyond the black letter type with which ~~the~~ Europeans were familiar with in the dark ages, & Gunpowder was never used for aught except ~~to~~ the manufactory crackers & other fire-works of sort.

The ~~terrible~~ epidemic of Small pox

infinite visitor to Hong Kong during the months of November & December 1887 & January 1888 was of a terrible description. So great was the scourge that in the months of December alone three people died of small pox in the months of December 1887 in the city of Victoria Hong Kong with a population of only 200-000 i.e. a town with about the population of Newcastle; there died of small pox in all England & Scotland with a population of about 33,000,000 in a whole year. During the year in question also 1887 there was an epidemic of small pox in Sheffield & ~~Notton~~ Northampton.

This frightful mortality was surprising amongst a people who believe in vaccination & rather inoculation

so led me to inquire more closely as to the methods of protection pursued.

The information ~~some~~ detailed below was gathered by the Acting Registrar General from the Chinese public vaccinator (a Chinaman) at the Native Hospital in Hong-Kong, - the Tung Wa.

1. Inoculation is ~~the~~ a very the starting point from which lymph was obtained in the first or at subsequent intervals.

~~2. When [illegible] small pox pustule~~

2 The methods pursued are as follows:-

(a) a small pox pustule is never allowed to scab - the scab is dried carefully, or either used immediately or kept for some time, it may be years. When inoculation is to be performed the dried scab is ~~then~~ powdered finely & blown up the nostril of the individual ~~[illegible]~~ about to be inoculated.

2. The result is a mild attack of small pox. ~~[illegible]~~

~~(b) Inoculating the thread.~~

6). From the person suffering from small pox thus induced variolous lymph is gathered & directly used or stored in tubes for future use. When used it is inserted into the arm; three distinct insertion areas being the rule.

3. The variolous lymph from the arm of the third person is collected & used to ~~vaccinate~~ vaccinate a fourth – the fourth a fifth & so on for an indefinite period.

4. The ~~times~~ number of times that variolous lymph is re-introduced through a consecutive series of cases is ~~practically~~ without limit. Inoculation is not considered needful where there is plenty of variolous lymph from arms to be obtained.

5. It is possible that ~~there has not been a~~ the lymphs (now being used in the progeny) which were brought in to ~~the~~ Hong Kong when the ~~Chinese Commission~~ it was formed as well

It is possible that the variolous lymph now
is being used if it was started from an earlier
~~fifty years & have much further~~
~~about the history of that lymph~~
~~back the lymph that~~
~~the colony when first arrived~~
~~is impossible ever to find out.~~
Vaccinia variola fifty years ago.

Vaccination among Chinese

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