

Correspondence.

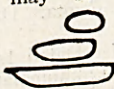
THE DANGER OF INJECTING AIR INTO A VEIN.

To the Editor of THE INDIAN MEDICAL GAZETTE.

SIR.—My attention was drawn to this important subject by Major Porter's correspondence in the January issue of the *Indian Medical Gazette*. Hence I place before my readers an experience of three years' in connection with the subject, if experience it could be called.

The air bubbles may be classed into three main kinds:—

1. Small size
2. Medium size
3. Large size



During my few years' service I have given hundreds of intravenous injections for the introduction of anti-syphilitic and other valuable remedies, without any danger resulting from the introduction of an air bubble of No. 1 size. Same is, I believe, Major Porter's experience, though he does not make any mention as to the size of the bubbles injected by him. Truly, it has been said by him that many of our brethren are timid to give intravenous injections, merely because of the danger of an air embolus. They have been wrongly convinced to a fair extent. They may safely inject an air bubble of No. 1 size without any ill effect following it. I have no experience with No. 2 bubble. But No. 3 size bubble would end in death and I dare not suggest to any of my professional brethren to attempt this bubble for injection. I had once lost a patient through my carelessness in expelling air from the salvarsan injecting apparatus, and it was in the beginning of my medical career. My conclusion is as follows:—

Air bubble of No. 1 size = No harm.

Air bubble of No. 2 size = Little harm (may or may not.)

Air bubble of No. 3 size = Death.

It is of no avail to enter into discussion and one's guidance should be as dictated by Professor Albert Carless in his famous book of surgery (Ed. 1920, page 362, para. 2) and I cite his words: "A large embolus started in a peripheral vein lodges in one of the branches of the pulmonary artery and may cause instant death; a smaller one is arrested in one of the smaller arteries of the lung and may do but little harm, whilst minute ones may possibly pass through the pulmonary capillaries to the left side of the heart and subsequently become impact in the systemic vessels.

Yours, etc.,

RAJINDER SINGH GREWAL,

L.M.S. (S'pore),

Assistant Surgeon, Meiktila, Burma.

12th February, 1922.

To the Editor of THE INDIAN MEDICAL GAZETTE.

SIR.—In response to the correspondence of Major Porter, published in the January number of the *Gazette*, I may mention here that while in charge of a special venereal section of a war hospital for a few months, I had to perform myself not less than a hundred intravenous salvarsan and kharsivan (not the neo-salts) injections every week. During the troublesome process, I once could not avoid introducing two or three air bubbles at rapid succession. According to the traditional teaching of the terrible effects of air embolism, I passed a few most anxious hours. But happily nothing untoward transpired.

Later on, on three more occasions, I distinctly remember to have introduced air bubbles in the veins of different individuals, without any bad effect.

In my opinion, it is most likely that the air bubbles are incarcerated into the meshes of the columnæ carneæ

of the right auricle and its appendix, whence gradually absorbed by the blood stream. I think bad result can only follow in the shape of an embolus in the pulmonary tissues, unless the volume of air introduced is immoderate, in which case a condition of shock and sudden heart failure is not unlikely to follow from the irritation of the sensitive endocardium.

Later on, in my present practice in a bad kala-azar area, while injecting antimony solutions and neo-salvarsans, which I have had to perform very frequently, I never take any great trouble to remove those minute air bubbles which so tenaciously adhere to the sides of syringe and piston, without any bad effect whatsoever.

On the strength of the above facts, I can conclude that the dread of introducing air bubbles is mostly hypothetical. Of course, every ordinary precaution to the technique and a rigid asepsis should on no account be relaxed.

I hope other workers will kindly publish their observation and put a strength to our findings.

Yours, etc.,

H. CHATTERJEE, M.B.,
LATE CAPTAIN, I.M.S.,
Baisrasi, Sadarpur, Faridpur.

25th February, 1922.

To the Editor of THE INDIAN MEDICAL GAZETTE.

SIR.—In your issue of January 22, I find amongst the correspondence columns a small matter of actual experience as depicted by Major Porter, with reference to the bug-bear of the fear of introduction of air bubbles in intravenous injection. I thoroughly agree with the writer, although my own experience is not too extensive. I have had the opportunity, however, of giving a good many intravenous injections of salvarsan while in military duty in 1918, at the Labour Corps War Hospital at Dadar, and this much dreaded misfortune had occurred a few times before it could well be prevented, although every possible precaution was being taken. To my surprise, however, in no case any ill results followed this accidental introduction of a little air into the veins, and although one would certainly try his best to prevent such an occurrence, a few air bubbles accidentally introduced in these injections do not, as a matter of fact, cause any ill effects on the patient.

Yours, etc.,

V. R. MASUREKAR,
CAPTAIN, I.M.S. (Hon.).

BHATWADY 1ST LANE,
GIRGAON, BOMBAY,
20th February, 1922.

BRITISH INCOME TAX.

To the Editor of THE INDIAN MEDICAL GAZETTE.

SIR.—May I remind those of your readers who receive income from the United Kingdom and have already made a claim to the Inland Revenue for repayment of the Income Tax deducted therefrom for last year, that a further claim can now be made in respect of the current financial year.

To those of your readers who possess such income and have not yet made their claims, I would point out that by the Finance Act, 1920, a British subject resident out of the United Kingdom is entitled to recover the whole or part of the Income Tax deducted from income arising in this country. With tax at 6s. in the £, it means a very considerable addition to the income of such persons.

In addition to the above claims, any person, whether British subject or otherwise, may recover the whole of the tax deducted from the interest on foreign and colonial securities paid through this country for the past three years. I have known these claims to amount to hundreds of pounds.

I have made the subject of Income Tax claims my special study and am prepared to give the benefit of my experience to any of your readers without charge, as it occurs to me that it is a great pity that many thousands