LYMPHADENOPATHY FOLLOWING INTRAMUSCULAR IRON THERAPY

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Parenteral iron therapy has helped a great deal in the management of iron deficiency anaemia by shortening the duration of treatment. Recently advocated total dose infusion therapy has made things more convenient, both for the patient and the doctor. Imferon and Jectofer still remain the drugs of choice as they can be given by the intramuscular route. The treatment is convenient and response good, but both drugs are not completely free from risk. Krishna Menon has reported reactions in 19 out of 112 cases, which were in the form of muscle and joint pains, effusion in joints, cerebral haemorrhage, encephalopathy, lymphadenitis and pyrexia. Mathur has reported the occurrence of lymphadenopathy. We came across three cases where the patients developed lymphadenitis and pyrexia as a result of Imferon in 2 cases and Jectofer in one case. The injections are given in the gluteal muscles as a routine.

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Case 1

Patient, G. D., aged 45 years, a case of dysfunctional uterine haemorrhage, was admitted on 2-4-'66 in the gynaecological ward. She was anaemic; Hb%—8 Gm.%. She had a curettage. Imferon, intramuscularly, was started from 5-4-'66. After five injections, which were given on alternate days, on 13-4-'66 she started getting pain in both the inguinal regions. The transverse chain of superficial inguinal glands were found enlarged, firm, discrete and tender on both the sides. Next day she had a temperature 104° F, which recurred on the third day. The total W.B.C. was 12,000/cu. mm. with polymorphs 68%, and lymphocytes 32%; E.S.R. was 90 mm. at end of first hour. Blood for microfilaria was negative. The injections were discontinued and a course of sulphonamides was given. A.P.C. was given as required. Pain and tenderness disappeared within 4 days. The temperature as already mentioned only persisted for 2 days, but the enlarged glands remained for 21 days. A gland biopsy was taken on 27-4-'67. A course of injections of Streptopenicillin was given. The glands disappeared by 4-5-'66.

Biopsy report:

Macroscopic: The lymph nodes were enlarged and discrete, size varying from ½ to ¾ of an inch. Colour: grey. Cut surface, homogenous and brownish.

Microscopic: There was marked hyperplasia of the reticulum cells with large number of macrophages containing brown pigment in the cytoplasm. Macrophages were also found in sinusoids.

On staining with Prussian Blue method, the brown pigment had taken up a deep

blue colour identifying the pigment to be iron (Figs. 1 & 2).

Case 2

M. R., aged 40 years, a case of fibroid uterus, was admitted on 2-6-'66. She also had menorrhagia. She was severely anaemic, Hb.—4 Gm.%, and was being treated by Jectofer intramuscularly, along with other haematinics. On the ninth day, on 11-6-'66 she had a temperature of 102° F. and pain in both inguinal regions. The superficial inguinal glands were enlarged, firm, tender, and discrete on both sides. Jectofer was discontinued. The fever subsided on 14-6-'66 and the glands disappeared by 26-6-'66. A total abdominal hysterectomy was performed on 27-6-'66.

Case 3

P.R., aged 42 years, was a case of cervical fibroid and menorrhagia. She was anaemic, Hb. 7 Gm.%, and R.B.C. 2.3 mil./cu. mm. She was treated with Imferon, intramuscularly, on alternate days. After the second injection she developed pyrexia of 103° F, burning in the throat and epigastrium, severe muscle and joint pains and right sided inguinal lymphadenopathy. Imferon was discontinued and she was given Phenargan, 25 mg. t.i.d., and A.P.C. as required. The temperature came to normal on the third day. Burning in the throat and epigastrium stopped on the next day. The lymph glands disappeared after a week. No antibiotics or chemotherapy were given. She had a vaginal myomectomy and currettage.

Discussion

Three cases of inguinal lymphadenopathy and pyrexia following intramuscular iron therapy are reported. The absorption of iron, when given by the intramuscular route, occurs via the lymphatics; overloading of the same, either as a result of a large dose or slow mobilisation, brings about deposition of iron in the endothelial lining. The reticulosis is a reaction to iron pigment deposition. There is no inflammation and the degree and duration of pain is more as compared to that of temperature. Analgesics help to relieve the pain and antibiotics are not of much help. It is observed that after stoppage of injections the glands take a variable time to regress. They took 21 days in the first case, 14 days in the second and 7 days in the third case. In the case reported by Mathur, they took 7 days. It can be concluded that the regression depends upon the rate of mobilisation of iron. Pyrexia, burning of mucosa and generalised bodyache can be considered as anaphylactic reactions and are of shorter duration.

Summary

Three cases of lymphadenitis following intramuscular iron are reported.

Iron pigment deposition in endothelial cells and reticulosis were seen on histopathological examination in one case.

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References

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Figs. on Art Paper II