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Letter to the Editor

Coagulation Therapy in Hemophilia A and its Relation to Factor VIII Inhibitor in Northeast of Iran

Dear Editor,

Hemophilia A is an X-linked recessive hemorrhagic disorder.[1,2] Patients with hemophilia experience bleeding episodes that should be controlled by administering appropriate amount of factor VIII concentrates.[3,4] Except concerns for virus-infected products—that has been reduced using molecular diagnostic methods—a new concern that has recently been raised is the presence of factor VIII inhibitors in patients with hemophilia A.[5] In this study, we tried to determine the types of coagulation therapy and its relation to factor VIII inhibitor.

A total of 102 patients with hemophilia A agreed to attend this study. They were asked to complete a questionnaire and provide a blood sample. Then, we measured factor VIII inhibitor as explained elsewhere.[6] Results showed that of 102 participants, three had used fresh frozen plasma (FFP) during the last six months; 10 used cryoprecipitate, 73 used factor VIII concentrate, four used both FFP and factor VIII concentrate and 12 patients had used both factor VIII concentrate and cryoprecipitate. Amongst them, 20 (20%) had factor VIII inhibitor: One patient who had used FFP; among 10 patients who used cryoprecipitate, three; from 73 patients who used factor VIII concentrate, 14; one who used both FFP and factor VIII; and one patient who used both factor VIII and cryoprecipitate had factor VIII inhibitor.

It seems that preparation of coagulation factor concentrates is one of the most problematic aspects of taking care of patients with hemophilia in developing countries. In our group, only 73 (72%) patients had used factor VIII concentrate and three (3%) used FFP and 10 (10%) had used cryoprecipitate. This shows that either these patients do not have enough access to coagulation factor concentrates, or the distribution of coagulation factors was not appropriate.

Patients who have not enough access to coagulation concentrates will have more susceptibility to bleeding episodes. This leads to excessive financial burden on medical services and their families. It may also lead to disability of patients. No doubt, more attention should be paid to patients with hemophilia A so that they will have more reliable medical support. Another issue to be mentioned is the relation between factor VIII inhibitor and factor VIII concentrate consumption, an issue that has been noticed earlier regarding other coagulation factor products. Currently, more important issues—such as HLA and genetics abnormality in factor VIII gene—are being argued.

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References

1 Mannuci PM, Tuddenham E. The hemophilia from Royal genes to gene therapy. *N Engl J Med* 2001; **344**: 1773-9.
2 Liras A. Gene therapy for hemophilia: The end of a Royal pathology in the third millennium? *Haemophilia* 2001; **7**: 441-5.
3 Dingli D, Gastineau DA, Gilchrist G, and et al. Continuous factor VIII infusion therapy in patients with hemophila A undergoing surgical procedures with plasma derived or recombinant factor VIII concentrates. *Haemophilia* 2002; **8**: 629-34.
4 Yee TT, Beeton K, Griffioen A. Experience of prophylaxis treatment in children with severe hemophilia. *Haemophilia* 2002; **8**: 76-82.
5 Minor PD. Are recombinant products really infection risk free? Haemophilia. 2001; **7**: 114-7.
6 Maansouri Torghabeh H, Pourfathollah AA, Mahmoodian Shooshtari M, Rezaie Yazdi Z, et al. Evaluation pattern of factor VIII inhibitor in patients with hemophilia A in Khorasan. *Hakim J* 2004; **8**: 1-5.