

## EDITORIAL FOR THE MONTH OF JUNE 2008

### The use of INR (Prothrombin Time) in my practice

I see many patients with different types of hemorrhagic or bleeding disorders in my practice, Prothrombin time and INR levels are the two common investigations which I use a lot in my practice. In this editorial I would like to highlight the importance of INR.

#### **What is the definition of INR?**

INR means International Normalized Ratio, a system established by the World Health Organization (WHO) and the international committee on thrombosis and homeostasis for reporting the result of blood coagulation (Clotting time). All results are standardized using international sensitivity index for that particular thromboplastin reagent and the instrument combination utilized to perform the test. For e.g.: a person taking the anticoagulant (Blood thinner) **Warfarin** might optimally maintain a Prothrombin time to 2-3 INR. No matter what the laboratory checks the Prothrombin time, the results should be the same even in different thromboplastins and instruments are used. This international standardization permits the patient on Warfarin to travel and still obtain comparable test results.

There are patients in my practice who suffer from Atrial Fibrillation or who have been transplanted with artificial valve in their heart and who have been prescribed anticoagulant medication. I very slowly reduce the dosage of Warfarin and supplement this with correct homeopathic medicine; I do this by frequent monitoring of INR estimation.

In healthy people the INR is about 1.0, for patients on anticoagulant therapy the INR should be between 2 and 3. The ideal INR must be individualized for each patient, INR greater than 4 may indicate that the blood is clotting too slowly creating a risk of uncontrolled bleeding. INR less than 2 may not provide adequate protection from clotting.

Many drugs can change INR like aspirin, ibuprofen, antibiotics, birth control pills, progesterone-estrogen combination pills. Foods that are very rich in Vit-K can alter blood clotting factor INR; broccoli, lettuce, spinach, liver of animals are extremely high in Vit-K. I always encourage the patient to include this

nutritious food in a healthy diet. It is important to consume a consistent amount of this food so that the blood clotting factor remains always healthy.

Whenever treating a bleeding disorder if the INR is greater than 4 then I use certain homoeopathic remedies to lower the INR and bring it to normal state.

The most important are the snake venoms and corticotropinum. I would briefly give the indication of the common snake venoms that I use in my practice with their general indications.

### **Bothrops:**

- Anemia
- Associated thrombocytopenia
- Blackness of the affected part
- Hemorrhagic blood is thin, dark, black and non-coagulable
- Patient may have twitching of the muscle here and there.
- Person can bleed from any orifice of the body
- Pulse is slow and weak
- There is H/O gangrene or recurrent thrombosis

### **Crotalus horridus:**

- Associated Cellulitis or septicemia
- Marked weakness on slightest exertion
- Offensive odor from the body
- Patient can be cyanosed with severe hemorrhage that is black or bright red with dark clots decomposed non-coagulable
- Patient may have H/O cancer
- Pulse is full, hard, irregular, and strong or it can be soft and weak
- Severe anemia with blackness of the external part which are extremely cold to touch.
- Sticky, thin, watery blood or it can be a passive oozing of blood
- There can be a severe trembling with faintness and vertigo

### **Lachesis:**

- Blackness of the affected parts which are cold and moist
- Hemorrhage can be charred-straw, black like clotted, dark, decomposed, ropy, and uncoagulable
- Pulse is frequent, full, hard, intermittent and irregular
- Severe bone marrow depression characterized by agranulocytosis, thrombocytopenia and severe anemia
- Strong sensation of heat, patient desire fan constantly
- There can be h/o cancer
- There can be severe arteriosclerosis
- There will be a severe septicemia, severe trembling especially during sleep and accompanied by palpitation
- Twitching of muscles during sleep
- With the hemorrhage the patient may have a desire to be pressed very hard

### **Vipera:**

- Hemorrhage of decomposed non-coagulable blood
- Marked blackness of the affected part and useful in old people
- Person can faint due to pain
- Pulse is irregular, slow and small
- Severe inflammation in the venous system especially of the lower limb

### **Corticotropinum:**

- Anemia
- Increase in leucocytes count
- Platelet count may drop severely
- Pulse is irregular
- Severe hemorrhage of non-coagulated blood with severe hypo as well as hypertension

These are the confirmed clinical observations from 28 years of my practice. Snake venoms have never let me down, majority of the bleeding disorders whereby I was successfully able to reduce the raised INR.