

and antipenicillin antibodies. Hemolysis will subside as soon as penicillin administration is stopped. (2) A drug can trigger, perhaps through mimicry, the production of an antibody against a red cell antigen. The best-known example is methyldopa, an antihypertensive agent no longer in use, which in a small fraction of patients stimulated the production of the Rhesus antibody anti-e. In patients who have this antigen, the anti-e is a true autoantibody, which then causes true AIHA (see above). Usually this will gradually subside once methyldopa is discontinued.

Severe intravascular hemolysis can be caused by the venom of certain snakes (cobras and vipers), and HA can also follow spider bites.

Paroxysmal Nocturnal Hemoglobinuria (PNH) PNH is an acquired chronic HA characterized by persistent intravascular hemolysis with occasional or frequent recurrent exacerbations. In addition to (i) hemolysis, there may be (ii) pancytopenia and (iii) a distinct tendency to venous thrombosis. This triad makes PNH a truly unique clinical condition; however, when not all of these three features are manifest on presentation, the diagnosis is often delayed, although it can always be made by appropriate laboratory investigations (see below).

PNH is encountered in all populations throughout the world, but it is a rare disease, with an estimated prevalence of ~5 per million (it may be somewhat less rare in Southeast Asia and in the Far East). PNH has about the same frequency in men and women. PNH is not inherited, and it has never been reported as a congenital disease, but it can present in small children or as late as in the seventies, although most patients are young adults.

CLINICAL FEATURES When seeking medical attention, the patient may report that one morning, she or he “passed blood instead of urine.” This distressing or frightening event may be regarded as the classic presentation; however, more frequently, this symptom is not noticed or not reported. Indeed, the patient often presents simply as a problem in the differential diagnosis of anemia, whether symptomatic or discovered incidentally. Sometimes the anemia is associated from