PO059 **COST-BENEFIT RATIO OF SECONDARY PROPHYLAXIS IN YOUNG-ADULT SEVERE HAEMOPHILIACS: TOWARDS A QUALITY OF LIFE-ORIENTED TREATMENT**

Guida A.[(1)], Coppola A.[(1)], Di Capua M.[(1)], Macarone Palmieri N.[(1)], De Gregorio A.[(1)], Di Minno M.N.D.[(1)], Quintavalle G.[(1)], Cimino E.[(1)], Cerbone A.M.[(1)], Ruosi C.[(2)]
[(1)] Regional Reference Centre for Coagulation Disorders, Federico II University, Napoli; [(2)] Department of Orthopaedics, Federico II University, Napoli

Background Clinical benefits of secondary prophylaxis (SP) in young-adult severe haemophiliacs are largely debated, as only retrospective data are available, often obtained from small case-series. In chronic diseases like haemophilia, the improvement of quality of life is a primary objective of health-care interventions, but pharmacoeconomic implications may influence therapeutical choices.
Methods Treatment regimens of severe haemophilic patients aged >18 yrs attending our Haemophilia Centre over the last 7 years were reviewed. Clinical data from 25 patients (median age 31 yrs, range 22-53) switched to long-term SP were compared to those from 19 age-matched patients who received on-demand treatment. Data on quality of life were obtained by scores of visual analogue self-rating scales (VAS), on which patients reported their perceived treatment satisfaction, haemophilia-related physical restrictions, psychological impact and social functioning (100 highest, 0 lowest), registered every 12-18 months.
Results Between 2001 and 2007, the rate of patients aged >18 yrs on SP at our Centre has more than doubled (from 17% to 39%; from 29% to 57% among patients aged 18-30 yrs).
Patients started long-term SP (median dose 27 IU/Kg thrice weekly) at a median age of 24 yrs (range 18-49). Median follow-up was 5.3 yrs (2.4-6.8). Eleven patients used recombinant and 14 plasma-derived concentrates; six patients switched to recombinant products over the study period. Thirteen patients (52%) had a history of target joint(s), but the most frequent reasons for starting prophylaxis were the increase of bleeding frequency and limitations in physical activity. Patients on SP showed a significant lower frequency of bleeding episodes (median 6, 0-18 vs. 19, 8-51 per patient-yr, $p<0.01$), with a 57% increase of FVIII consumption (median 4486 vs. 2556 IU/Kg/yr). Thus, prophylaxis resulted in increase of costs of 94,570€ per patient-yr. A good long-term compliance to SP was registered, only 3 patients (12%) reporting withdrawal >3 mo.
Prophylaxis regimens were tailored according to patient need and clinical outcomes in six cases (infusions twice weekly in 2, each other day in 3 and 5 days per week in one). An improved quality of life was documented in patients on prophylaxis, among whom 22 (88%) regularly attended school/work and 13 (52%) practiced physical activity/sports. Significantly lower scores of physical ($p<0.001$) and psychological ($p<0.05$) restrictions, together to higher satisfaction to treatment ($p<0.001$) and social functioning ($p<0.01$) were reported in patients on SP than in those on-demand.
These results were confirmed at repeated assessment over the study period. Indirect measures of better quality of life were lower numbers of work-school days lost and of visits and other health-care interventions in patients on prophylaxis.
Conclusions Secondary prophylaxis is increasingly prescribed among young-adult severe haemophiliacs as a "quality of life-oriented" and tailored choice of treatment. The undoubted increase of costs is associated to significant reduction of bleeds and, in parallel, of patients' physical and psycho-social restrictions, improving their participation to active life. The increase of direct costs for concentrates should be balanced by the reduction of other social and health-related costs. These benefits are likely to be also higher at longer follow-up evaluations.

PO060 **PREVALENCE OF VON WILLEBRAND DISEASE AND OTHER BLEEDING DISORDERS IN YOUNG WOMEN WITH MENORRHAGIA AND/OR IRON DEFICIENCY ANAEMIA**

Di Capua M.[(1)], Coppola A.[(1)], Ferrara I.[(2)], Pardo M.[(1)], De Gregorio A.M.[(1)], Errico G.[(1)], Tufano A.[(1)], Cerbone A.M.[(1)], Alfinito F.[(2)]
[(1)] Regional Reference Centre for Coagulation Disorders, Federico II University, Napoli; [(2)] Division of Haematology, Federico II University, Napoli

Background Menorrhagia is the most common cause of iron deficiency anaemia in women in fertile age. In most cases gynaecological and endocrinological conditions may explain the abnormal menstrual loss, however more recently the possible contribution of undiagnosed disorders of haemostasis has been recognized.
Methods We investigated the presence of abnormalities of primary haemostasis in 38 consecutive young women (15-35 yrs) referred to our Centre with a history of menorrhagia and/or iron deficiency anaemia. Dysfunctional or organic gynaecologic abnormalities (pelvic ultrasonography and hormonal evaluation) or other clinically detectable causes of iron deficiency (including coeliac disease by testing anti-transglutaminase antibodies and other clear-cut gastrointestinal diseases) were excluded.
The questionnaire for the collection of bleeding history and the computation of bleeding score, recently standardized in type 1 von Willebrand Disease (VWD), was used at patient enrolment. Coagulation assessment, carried out in the first week of the menstrual cycle and in the absence of any hormonal treatment or signs of inflammatory states, included bleeding time (Ivy), PT, aPTT, FVIII:C, VWF:Ag and VWF:RCo and in vitro platelet aggregation (Born). Abnormal data were confirmed by repeated assessments.
Results Two patients (5.2%) showed VWF abnormalities consistent with type 1 VWD (VWF:RCo<30%, RCo/Ag >0.7). In four patients (10.5%) abnormalities of in vitro platelet aggregation were detected and further studies led to diagnose storage pool disease in two cases and agonist-receptor abnormalities in the other two patients. Both VWD patients and 2 out 4 patients with platelet defect showed responsiveness to desmopressin (normalization of bleeding time).
On the whole, newly diagnosed VWD and abnormalities of primary haemostasis were found in 6/38 patients (16%) with idiopathic menorrhagia and/or iron deficiency anaemia, all with bleeding score >=5. However, as expected, the specificity of such finding was 67% in this population.
Conclusions Despite the limited sample size and the lack of objective assessment of menorrhagia, our data support the role of underlying disorders of haemostasis as aetiologic/ contributory factors in this setting. The standardized questionnaires and bleeding scores may be helpful to identify