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901.HEALTH SERVICES AND QUALITY IMPROVEMENT - NON-MALIGNANT CONDITIONS

Earliest Possible Detection and Intervention for Synovitis in Hemophilia- Results from a Single Center Retrospective Cohort Study

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Introduction
There is scientific evidence to suggest that the most serious health problems for hemophilic patients arise from joint damage, which in turn results from joint bleeding, which is overlooked and therefore not treated. The ankle joint was affected the earliest in most hemophilic patients. Strategies for detecting and treating bleeding in hemophilic patients need to be further developed and made more widely known by clinicians.

Aim of our study
The aim of our retrospective, single-center cohort study was to compare the effects of reactive versus preventive joint ultrasound as guidance for adjustments of treatment regimens for patients with severe hemophilia at our Hemophilia Comprehensive Care Center (HCCC) in Duisburg, Germany.

Methods
Before 2020, we used ultrasound according to the German hemophilia-synovitis guidelines in 2018. This meant that we sonographed the ankle joints and knees of most of our patients when they reported discomfort in the joint or when a joint bleeding had occurred. In these cases, prophylactic hemophilia treatment was immediately adjusted to a level at which the bleeding and/or discomfort stopped. If the factor treatment was not sufficient to accomplish this goal, the joints were treated with radiosynoviorthesis (RSO). In 2020, we changed our diagnostic strategy from reactive to preventive measures. Thus, we used ultrasound on every ankle and knee joint of our severely hemophilic patients at least once a year. If we found so called "silent symptoms," which means touch-sensitive joints, the joints were sonographed once every three months. In cases of signs of joint degradation, we adjusted the prophylactic factor treatment accordingly.

Results
From 2020 to 2022, we examined a total of 1193 joints of 688 patients with hemophilia A or B, as well as with vWD disease type 2 or 3 and other severe coagulation disorders (factor VII deficiency, factor XIII deficiency, afibrinogenemia, and Glanzman disease).
Of these, 103 had severe hemophilia A or B. In this study, we examined 656 joints sonographically. Of these, we examined 281 ankle joints in 80 patients and 175 knees in 64 patients, and adjusted the therapy regimens accordingly in these patients if necessary.
Seven RSOs of the ankle joints and three RSOs of the knees were performed in the cohort up to 2020. After 2020, only two RSOs of the ankle joints were performed in the cohort.

Conclusions
At least for patients at our HCCC in Duisburg, Germany, we were able to show for the period 2020-2022 that closer ultrasound monitoring of ankle joints and knees in patients with severe hemophilia A or B and appropriate adjustment of prophylactic factor therapy was associated with less severe and less frequent joint degradation.

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