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WHY DO WE NEED PATIENT REGISTRIES IN SCIENCE – A PERSONAL EXPERIENCE?
ZAŠTO SU NAM POTREBNI REGISTRI PACIJENATA U ZNANOSTI – OSOBNO ISKUSTVO?

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Thirty years ago, a gastroenterologist discovered that the HLA B*44 allele is associated with type two arthropathy in inflammatory bowel disease (IBD). Unlike type 1 arthropathy, peripheral hand involvement never improved with appropriate treatment of IBD. We reviewed 6 years of medical records from a rheumatology outpatient clinic and found 379 B44+ patients. Six out of ten patients had peripheral joint involvement, mostly the PIP and DIP joints (OA pattern). Only one third had a definitive rheumatic diagnosis; the rest were under observation or ruled out a diagnosis of rheumatic disease. A total of 44 people were diagnosed with definitive seropositive rheumatoid arthritis. On further analysis of this group, we found that 7 out of 10 patients had a value of >195.6, which is the highest value measured in our laboratory.
We found this unusual and decided to find a control group (B*44 negative, all other HLA A, B or DR alleles welcome) and compare the values of RF and anti-CCP. The third group was the control group of healthy bone marrow donors with 10,000 alleles for comparison.
However, different measurements of RF and anti-CCP with different tests and the EULAR recommendations of: 1-3 x positivity versus >3 positivity made us rethink the classification. We created a semi-quantitative scale: 0 negative, 1; 1-3x positive, 2; 3-10 times, 3; 10-20 times and 4; >20 x positive. 140 controls were obtained from mining the database in Split. Statistically, three alleles stood out with the odds ratio of 3,9x, 5.6, and 2.7 >20x values of anti-CCP than the rest of the alleles. Two were HLA type I and one was an expected HLA type II allele.
Then the problems began: experienced reviewers asked if smoking affected our results, whether disease activity had an impact on people with extreme anti-CCP levels? Did the duration of the disease affect the results or anti-CCP levels over time? Did anti-CCP change over the years?
The answers could be found in the registry, but in our case only the first survey contained basic data on habits and 70% of the data was missing, and also disease activity is only mentioned when biological therapy was planned.
Finally, the statistical reviewer insisted on the Bonferroni correction: "It may be overly conservative, but I think that simply considering a nominal p-value of <0.05 as statistically significant is a bit too lenient." The only way to deal with this is a multicent study in collaboration with all centers (or a registry analysis).

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