Best Practice for Screening Adult Patients with Psoriasis for Polyautoimmunity: Celiac Disease, Rheumatoid Arthritis and Crohn’s Disease

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Abstract

The purpose of this project is to conduct a substantive review of the literature to determine if screening primary care patients with psoriasis will improve early detection of celiac disease (CD), rheumatoid arthritis, and Crohn’s disease (CrD). The aim of this project is to assess the utility of early screening in patients with psoriasis in order to facilitate earlier diagnosis of CD, RA and CrD, which would consequently initiate earlier treatment and improve long-term patient outcomes. Genetic and population-based studies suggest that individuals with psoriasis have a greater risk of also having CrD, CD or RA, than do individuals without psoriasis. The literature also suggests that health care providers would be prudent to evaluate psoriatic patients in a prospective manner for these AI disorders in order to improve the patient’s long-term health outcomes.

The DNP project investigator developed and implemented an evidence-based patient questionnaire regarding the signs and symptoms of CD, CrD and RA, plus three referral algorithms (one each per CD, CrD and RA). Over the course of two weeks at a Northern Virginia dermatology clinic, the patient questionnaire was delivered to adult patients over the age of 18 years with a history of psoriasis or a new diagnosis for psoriasis. The outcomes measured during the quality improvement project included the responses from the patient questionnaire and if the provider documented screening for polyautoimmunity and referral.

A total of 261 patients (n=261) were seen at the clinic for a variety of different skin disorders. Thirty-four adult patients with either a history of psoriasis or a new diagnosis of psoriasis completed the patient questionnaire during this timeframe. Seventeen of these patients (50%) were female; seventeen (50%) were male. The mean
age of the psoriatic patients was 55.71 years old. The youngest patient was 18 years old and the oldest was 81 years old. Provider documentation for all 34 patients demonstrated 100% compliance for noting that the patient a) had been screened, and b) if referral was or was not indicated.

Frequency data indicated that the most reported symptom was a history of vitamin D deficiency (38.24%). Thirty percent of psoriatic patients reported having a first-degree relative with celiac disease, Crohn’s disease or rheumatoid arthritis. The next most frequently reported symptoms were for rheumatoid arthritis: daily joint or muscle pain > 6 weeks (29.41%), daily tender or swollen joints > 6 weeks (23.53%), and weakness or fatigue > 6 weeks (23.53%). The most reported GI symptom was abdominal distention and/or bloating after eating (14.71%). The least reported symptoms, at 2.94% each, were abdominal pain after eating, painful bowel movements, and running a fever in the past 4 weeks.

For the 29.41% psoriatic patients that reported having a first-degree relative with CD, CrD or RA, 46.51% of individuals reported that this relative was their mother. CD was reported in 38.46% of the cases, with CrD and RA each being reported in 30.76% of the cases of first-degree relative. One individual had a mother with both CD and RA; a second individual reported having a child with both CD and CrD, and a third individual reported having a mother with CD and a brother with CrD.

Nine of the thirty-four psoriatic patients (26.47%) fulfilled the algorithm requirements, which indicated additional evaluation and referral for care was merited. Based on their questionnaire responses, five individuals fulfilled the algorithm requirements for additional celiac disease evaluation and six individuals fulfilled the
requirements for additional rheumatoid arthritis evaluation. Two of the nine patients merited additional evaluation for both celiac disease and rheumatoid arthritis. No patients were referred for possible Crohn’s disease.

This quality improvement project highlights the fact that a real need exists for evaluating adult patients with psoriasis for polyautoimmunity and familial autoimmunity. The fact that nine of the 34 patients, or 26.47% of psoriatic patients indicated for further evaluation based on their reported gastrointestinal and/or arthritic symptoms underscores that need for provider screening and is consistent with the literature. Additionally, 29.41% of the psoriatic patients reported having a first-degree relative with CD, CrD and/or RA (8.82% of whom merited additional evaluation) supports the literature that states providers should be asking about their family history of autoimmune disorders. It is important to note, however, that an indication for referral does not automatically indicate a diagnosis for co-autoimmunity. Additional evaluation is necessary in order to rule-out the many other possible differential diagnoses that could be associated with these symptoms.