



**FIG 24-4** Deforming arthritis of the hands in a person with psoriatic arthritis. (From Callen JP, Greer K, Paller A, et al: *Color atlas of dermatology*, ed 2, Philadelphia, 2000, Saunders.)

### PSORIATIC ARTHRITIS

Psoriatic arthritis is a seronegative inflammatory joint disease that affects a small percentage of people with psoriasis.<sup>19,27</sup> Psoriasis is an inherited chronic inflammatory skin disease that is characterized by silvery scales on a bright red plaque (Fig. 24-4).<sup>7,19</sup> In most cases, the skin disease precedes arthritis symptoms by several months to years.<sup>15</sup> Psoriatic arthritis closely resembles RA but has differences such as DIP joint involvement, psoriasis or family history of psoriasis, nail pitting, and "sausage" appearance of digits.<sup>9,20,27</sup> Gender does not appear to predispose one to psoriatic arthritis. It generally begins between ages 30 and 50 years.<sup>15,19,25</sup> Psoriatic arthritis is usually asymmetric and involves the small joints of the hands and feet.<sup>9,19,44</sup> However, larger axial joints, such as the sacroiliac joint, can be affected in later phases of the disease. Sacroiliitis usually occurs unilaterally, whereas ankylosing spondylitis is bilateral.<sup>19,25</sup> Imaging reveals a "pencil-in-cup" deformity caused by erosion and destruction of the phalanx bones that makes them look like a sharpened pencil at the end of the bone (Fig. 24-5).<sup>7,9,44</sup> Psoriatic arthritis also can cause fingernail thickening, pitting, and separation from the nail bed.<sup>15</sup> Finally, periosteal reactions (formation of new bone) can be seen on x-rays.

Management of psoriatic arthritis is similar to management of RA.<sup>9,25,44</sup> Although there is no cure for psoriatic arthritis, NSAIDs can be used to treat inflammatory symptoms.<sup>7,19</sup> Most of the time the disease is mild and not destructive, and treatment consists of symptom management.<sup>7,19</sup>

### JUVENILE RHEUMATOID ARTHRITIS

Many acute and chronic rheumatic diseases exist in children with juvenile rheumatoid arthritis (JRA) being one of the most common.<sup>62</sup> JRA, a chronic inflammatory disease, actually covers three types of childhood arthritis: pauciarticular, polyarticular, and systemic.<sup>9,19,44,62</sup> The etiology of JRA is unknown, but it is thought to be triggered by environmental factors or infection in children with a genetic predisposition.<sup>19,62</sup> "JRA is similar to adult RA in the fact that the immune system mistakenly attacks the



**FIG 24-5** Pencil-in-cup deformity in the third proximal interphalangeal joint and bony ankylosis involving the wrist and phalanges of the second and fifth digits. (From Eisenberg RL: *Comprehensive radiographic pathology*, ed 4, St Louis, 2008, Mosby.)



**FIG 24-6** An affected knee in a patient with pauciarticular juvenile rheumatoid arthritis. (From Kliegman RM: *Nelson essentials of pediatrics*, ed 5, St Louis, 2006, Saunders.)

joints and organs, causing inflammation, destruction, fatigue, and other local and systemic effects."<sup>19</sup> JRA occurs before age 16 years and affects girls more commonly.<sup>9,19,62</sup> To confirm diagnosis, the child must have arthritis for at least 6 consecutive weeks.<sup>62</sup> Other symptoms of JRA are fever, rash, fatigue, anemia, loss of appetite, stiffness, irritability, altered mobility, and change in ADL.<sup>62</sup>

Pauciarticular JRA is characterized by asymmetric synovitis of four or fewer joints.<sup>9,19,62</sup> There are usually no systemic features, and it most commonly affects the knee, elbow, and ankle (Fig. 24-6).<sup>19,62</sup> Two subtypes of