and histology is the gold standard for confirming the diagnosis.

Little scientific evidence is available on the treatment of AEGCG, and the self-limiting nature of the disease, with a tendency to spontaneous disappearance of the lesions, makes it difficult to establish the efficacy of the different therapeutic regimens. Recommendations are based on isolated case reports or case series in which different therapeutic agents have been used with variable efficacy.[8] These agents include topical or systemic corticosteroids, topical calcineurin inhibitors, phototherapy, cryotherapy, antimalarial drugs, retinoids, ciclosporin A, tranilast, methotrexate, fumaric acid esters, pentoxifylline, clofazimine, and dapsone. We have only found 1 case report, dating from 1997, of a patient treated with dapsone with a good response.[9]

Dapsone (4,4-diaminodiphenyl sulfone) is a synthetic sulfone with a dual antimicrobial–anti-inflammatory mechanism of action. Since its incorporation into dermatology in the mid-twentieth century, its therapeutic indications have broadened. It is used mainly in the inflammatory neutrophilic and eosinophilic dermatoses, though there are also anecdotal reports of therapeutic success in many other entities, including AEGCG.[10] The starting dose in adults is 50 to 100 mg/d; this can be increased to 300 mg/d to achieve the therapeutic objective, afterwards returning to the minimal effective dose.

In conclusion, we have presented a case that is interesting for 2 reasons: the atypical site of the lesions in an area not exposed to the sun, and being the second reported case with an excellent response to dapsone.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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Spontaneous Remission of Recalcitrant Warts in Girls After Human Papillomavirus Vaccination☆

Remisión espontánea de verrugas recalcitrantes en niñas tras vacunación frente al virus del papiloma humano

To the Editor:

Two vaccines against specific human papillomavirus (HPV) types are currently being marketed. One is the bivalent vaccine Cervarix, which was authorized in 2007 for immunization against types 16 and 18, and the other is the tetravalent vaccine Gardasil, which was authorized in 2006 and also protects against types 6 and 11. The vaccines are indicated from age 9 onward for the prevention of premalignant cervical, vulvar, and vaginal lesions and cervical cancer. The tetravalent vaccine is also used to prevent the development of genital warts associated with specific HPV types. Both are administered intramuscularly and contain extracts of L1 protein from the types they protect against.[1]

HPV vaccination was started in the Autonomous Community of Valencia, Spain, in 2008 for girls aged 14 years. Gardasil was the vaccine funded by the National Health System and used from the outset. The supplier was changed in 2011, and the vaccine used since August of that year has been Cervarix. In January 2015, the decision was taken to bring the vaccination age forward to 12 years.

Cervarix is administered to girls aged 9-14 years in 2 doses, and the second dose must be administered 5-13

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Table 1 Patient Clinical Data.

Sex	Age, y	Site	Time Since Diagnosis	Previous Therapy	Vaccine	Doses	Outcome After Vaccination
Female	14	Hands, elbows, knees	6 mo	Cryotherapy (×6) and salicylic acid	Gardasil	3	Disappearance 1 mo after the third dose (28 wk)
Female	12	Hands, knees	9 mo	Cryotherapy (×5) and salicylic acid	Cervarix	3	Disappearance 1 wk after the second dose (5 wk)
Female	9	Hands	8 mo	Cryotherapy (×6) and salicylic acid	Cervarix	2	Disappearance 1 mo after the second dose (8 wk)
Female	10	Hands, knees	8 mo	Cryotherapy (×8) and salicylic acid	Cervarix	2	Disappearance 2 wk after the first dose (2 wk)
Female	13	Hands, chest, knees	3 y	Cryotherapy (×7) and salicylic acid	Cervarix	2	Disappearance 3 mo after the first dose (12 wk)

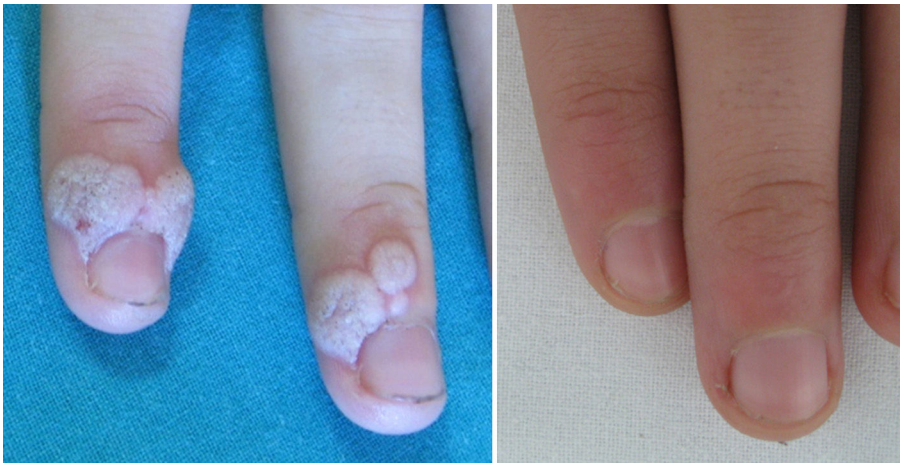

Figure 1 Clinical image of the warts before vaccination. Complete resolution of the warts after the first dose of bivalent vaccine.

months after the first one; if the dose is administered before 5 months, then a third dose is recommended. Gardasil can be administered to girls aged 9-13 years in 2 doses (0 and 6 months) and to girls aged ≥14 years in 3 doses (0.5 mL at 0, 2, and 6 months). Neither of the vaccines is recommended for girls younger than 9 years owing to the paucity of data on safety and immunogenicity in this age group.[1]

Involution of common warts has been described anecdotally after the administration of tetravalent vaccine.[2,5–8] Table 1 summarizes the clinical data of 5 girls whose common warts remitted after administration of the HPV vaccine. All 5 girls were prepubertal (mean age, 11.6 years) and presented multiple large warts that had appeared at least 6 months previously and were refractory to the usual topical medications. An interdepartmental consultation was made with primary care pediatricians, who were recommended to vaccinate the girls against HPV, thereby bringing the official vaccination calendar of the Autonomous Community of Valencia forward by 1-5 years. The warts resolved a mean of 11 weeks after the administration of the first dose (range, 2-28 weeks) (Fig. 1).

Given the excellent response in all 5 cases, we recommended bringing the HPV vaccination age forward in specific cases of girls with recalcitrant common warts. Remission of the warts was achieved in all cases, irrespective of the vaccine used.

Clinical observations and laboratory studies have shown that currently marketed HPV vaccines induce potent activation of the immune response in almost all cases, even in immunosuppressed patients, with antibody titers up to 11-fold higher than those achieved spontaneously.[2–7]

Similarly, several clinical trials have shown that each vaccine provides a different degree of cross-protection against other types of HPV that are not covered by both vaccines, thus enabling a protective efficacy against HPV that was greater than expected.[2–5]

The immune response to HVP is strongest after 7 months and optimal in girls aged 9-11 years, although the response

rate declines with age.[8] Thus, the immunoglobulin G titers generated after 2 doses of vaccine in girls aged 9-14 years are not inferior to those generated after 3 doses in women aged 15-25 years; hence, only 2 doses are usually administered in girls aged less than 14 years.[1] In this sense, a possible effect of sex hormones on the cellular response induced by these vaccines has been suggested, since they affect expression of HPV proteins.[8]

Finally, bringing the vaccination age forward to 9 years would not reduce medium- to long-term efficacy, since the bivalent vaccine has shown seropositivity rates > 98% at 8 years after administration of the first dose.[1]

Complete remission of common warts after administration of the recombinant bivalent HPV vaccine had not been previously reported in the literature. Bringing the HPV vaccination age forward could prove to be a very useful option for the management of recalcitrant common warts in prepubertal girls. In the coming years, the incidence of common warts could decrease in women vaccinated against HPV.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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Pityriasis Rotunda and Hyperprolactinemia☆

Pitiriasis rotunda e hiperprolactinemia

To the Editor:

Pityriasis rotunda (PR) is a rare acquired disease of keratinization. It presents as well-defined, scaly round plaques that can be hyper- or hypopigmented. PR mainly affects young adults of African descent and shows no gender preference. It has been associated with systemic diseases and malignant tumors, though many cases present no associated disorders.[1] We present a case of intense PR associated with hyperprolactinemia.

The patient was a 38-year-old African American woman with a history of hyperprolactinemia on treatment with cabergoline for the previous 7 months. She attended dermatology outpatients for a 9-month history of sharply outlined, circumscribed hyperpigmented plaques of ichthyosiform appearance, measuring 3 to 15 cm in diameter (Fig. 1). The patient stated that the lesions had first appeared on her chest and that they had gradually increased in size and number, spreading to the abdomen, buttocks, and upper and lower limbs. She reported no associated symptoms or previous treatment. Histopathology revealed hyperkeratosis, parakeratosis, a reduction in the granular layer, increased pigmentation of the basal keratinocytes, loss of the crest pattern, and a mild superficial perivascular lymphocytic infiltrate (Fig. 1). The findings were consistent with a diagnosis of PR.

Laboratory tests including complete blood count, biochemistry, urinalysis, Mantoux test, and tumor markers (α-fetoprotein, Ca 19.9, Ca 125, β_2-microglobulin, and carcinoembryonic antigen) were normal or negative. Computed tomography of the chest, abdomen, and pelvis, upper gastrointestinal endoscopy, and colonoscopy were normal.

After making the diagnosis, treatment was started with 10% salicylic acid cream and a combination of betamethasone plus calcipotriol, which led to a partial response.

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