Three Cases of Generalized Lichen Nitidus

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Lichen nitidus(LN) is an uncommon chronic inflammatory disease of shiny, flat-topped, flesh-colored uniform papules most commonly located on the penis, forearms and wrists, lower abdomen, and thighs. LN almost has localized distribution, but in rare cases, it may become generalized. In Korea, three cases of generalized LN were reported.

We report here three cases of generalized lichen nitidus in 31-year-old man, 8-year-old boy, and 6-year-old girl who had generalized numerous pinhead-sized, erythematous to flesh-colored, shiny papules. Microscopically, they had typical appearance of LN.


Key Words: Lichen nitidus, Generalized

Lichen nitidus(LN) is an uncommon chronic inflammatory disease characterized by minute, shiny, flat-topped, pale, reddish, yellowish red, or flesh-colored, uniform papules most commonly located on the penis, forearms and wrists, lower abdomen, and thighs1. It was first described by Pinkus in 19012. LN almost has localized distribution, but in rare cases it may become generalized3. In Korea, three cases of generalized LN were reported4-6.

Histologically, it is characterized by epidermal atrophy, parakeratosis, vacuolar degeneration of the basal layer, rete ridge downward projection like a “claw clutching a ball” appearance, and widened dermal papilla with lymphocytes, histiocytes, and multinucleated giant cells7.

REPORT OF CASES

Case 1
A 31-year-old male was noted to have generalized

flat-topped shiny papules which had been present for 2 years (Fig. 1). Histological examination revealed typical appearance of lichen nitidus, including epidermal atrophy, parakeratosis, vacuolar degeneration of basal layer, rete ridge downward projection, claw-like elongation and widened dermal papilla with many inflammatory cells (Fig. 2).

Case 2
An 8-year-old male was seen for evaluation of generalized flesh-colored, uniform papules with Koebner reaction on the back(Fig. 3). Histopathological examination confirmed lichen nitidus.

Case 3
A 6-year-old female was presented with generalized asymptomatic minute shiny uniform papules for 3 months. Histopathological examination confirmed lichen nitidus.

There are summaries of the three cases in table 1.

DISCUSSION

The papules of lichen nitidus(LN) are most commonly located on the penis, forearms and abdomen. Its occurrence has been infrequently reported on the palms, soles and mucous membranes8. Since the original description by Pinkus

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in 1901, very few cases of the generalized form of LN have been reported.

LN is a chronic disease that may spontaneously resolve after many months or may continue to be active indefinitely and almost all have a localized distribution, but in rare cases it may become generalized. Petrozzi et al. reported a case which started in the antecubital and popliteal area and extended to all extremities and Lapin et al. presented five cases of generalized LN out of his forty-three cases.

Fig. 1. Numerous pin-head sized, flesh-colored, shiny papules on the trunk and inguinal areas in case 1.

Fig. 2. The lesion revealed typical histologic appearance of lichen nitidus such as epidermal atrophy, parakeratosis, vacuolar degeneration of basal layer, rete ridge downward projection like "claw clutching a ball" appearance, and widened dermal papilla with lymphocytes, histiocytes, and multinucleated giant cells in case 1(H & E ×100).

Fig. 3. Linear arranged pin-head sized, flesh-colored, shiny papules on the back, demonstrating the Koebner reaction in case 2.

LN is associated with lichen planus in about 25%-30% of patients and is thought to have no relationship with systemic diseases. Kint et al., however, presented a case of LN with Crohn's disease and assumed that LN might be a cutaneous manifestation of regional ileitis. In Korea, there were no cases (including ours) associated with lichen planus or systemic diseases.

Our cases had the following clinical and histologic features, which are characteristic: clinically minute, shiny, flat-topped, pale, reddish, yellowish red, or flesh-colored, uniform papules, and histologically a small dermal papule with overlying epidermal atrophy and a parakeratotic horny layer. The granular layer was thin or absent, and liquefaction degeneration of the basal cell layer with cleft formation was observed. The bulk of the papule was formed by a focal accumulation of a mixed infiltrate of lymphocytes, histiocytes, epithelioid cells and occasionally, multinucleated giant cells of the Langhans type. The infiltrate was surrounded by a claw-like elongation of the rete ridges. Incon tinence of pigment, endothelial thickening, and dermal edema in the area of infiltrate were present.

Our cases fulfill the clinical and histopathologic criteria for lichen nitidus in its generalized form and as far as we know, only three cases of generalized lichen nitidus have been mentioned in the literature in Korea. One case was that of a 6-year-old boy...
Table 1. Summary of three cases

<table>
<thead>
<tr>
<th>Case</th>
<th>Age/Sex</th>
<th>Duration</th>
<th>Distribution</th>
<th>Symptom (pruritus)</th>
<th>Koebner reaction</th>
<th>Histopathology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31 / M</td>
<td>2 years</td>
<td>generalized</td>
<td>asymptomatic</td>
<td>negative</td>
<td>epidermal atrophy, parakeratosis, vacuolar degeneration of basal layer, rete ridge downward projection, claw-like elongation, widened dermal papilla with lymphocytes, histiocytes and giant cell infiltration similar to above discription</td>
</tr>
<tr>
<td>2</td>
<td>8 / M</td>
<td>4 years</td>
<td>face, back, buttock, elbow</td>
<td>asymptomatic</td>
<td>positive</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6 / F</td>
<td>3 months</td>
<td>face, trunk, extremities</td>
<td>asymptomatic</td>
<td>negative</td>
<td>similar to above discription and many epithelioid cells were seen</td>
</tr>
</tbody>
</table>

and another was a 10-year-old boy, both of whom were successfully treated with systemic and topical corticosteroids.

We started treatment in all three cases with topical corticosteroids, hydrocortisone-17-butyrate, but we lost the first two cases to follow up. The last case has not shown any improvement.

We report here three cases of generalized lichen nitidus, an uncommon cutaneous disease.

REFERENCES