

## Comprehensive Multiplexed Therapy for Severe Nodulocystic Acne in Puberty

Ichiro Kurokawa\*

Department of Dermatology, Acne Clinical Research Center, Meiwa Hospital, Japan

**Keywords:** Acne; Skin care; Acne vulgaris

Nodulocystic acne (NCA) usually develops subcutaneous epidermal cyst, granuloma, subcutaneous abscess, hypertrophic scar, keloids, and draining sinus. The pathogenesis of NCA is still unclear. Similar to NCA, acne conglobata (AC) is found in men predominantly with oily skin [1]. Lesions of AC begin in early puberty and culminate in late adolescent [1]. AC is one of the most therapy-resistant diseases which do not respond to usual treatments for acne vulgaris. In Europe and USA, isotretinoin has been used for the treatment for NCA and AC [2]. However, it is unavailable to use in Japan. Therefore, treatment for NCA in Japan is very difficult. Two cases with NCA have been treated with comprehensive therapy with incision, oral and topical antimicrobials, oral tranilast, topical benzoyl peroxide (BPO) and skin care.

### Case 1

15 year's old, male. The patient developed nodulocystic purulent and granulomatous lesions on the face two months ago before visit. Clinical manifestations demonstrated tender subcutaneous nodules with erythema, cystic lesions and granulomatous lesions on the face (Figure 1a). The surface of the lesions is covered by crusts and yellow pustules. The purpose of this commentary is to report comprehensive multiplexed important therapy for severe NCA in puberty male have been reported. In Japan, there are no available effective therapies for these severe NCA such as isotretinoin, anti-androgen drug and so on. Therefore, it is very difficult to treat these NCA in Japan.

The patient was treated incision under local anesthesia with 0.5% xylocaine in the glabella. After local anesthesia, xylocaine solution was leaked from the glabella to bilateral nasolabial fold area. This suggested the presence of undermined linear draining sinus between glabella and nasolabial fold area. Bloody pus was discharged from the fistula. Laboratory



**Figure 1a:** Tender subcutaneous nodules with erythema, cystic lesions and granulomatous lesions on the face. The surface of the lesions are covered by crusts and yellow pustules.

findings showed leukocytosis to a left shift, and slightly elevated CRP. The level of serum testosterone was within normal limits. The patient was treated with oral minocycline 100 mg/day, tranilast 200 mg/d and Saireito (Japanese Herb) 8 g/d. Additionally, topical clindamycin (1%), 2.5% BPO and heparinoid were used with education for face-wash. After four months, remarkable improvement was observed with postinflammatory erythema, pigmentation and atrophic scar (Figure 1b).

### Case 2

12 year's old, male. The patient noticed nodulocystic acne lesion on the forehead, glabella area and cheek one year ago before the visit. Clinical findings revealed cystic nodules and granulomatous lesions on the forehead, glabella and left cheek (Figure 2a). The surface of the lesions is partly covered by pustules and crust. Local anesthesia with 0.5% xylocaine was performed in glabella, resulting in discharge of xylocaine solution to left nasolabial fold area. This suggested the presence of undermined subcutaneous draining sinus between glabella and left nasolabial fold. Bloody pus was discharged from the fistula.



**Figure 1b:** After four months, remarkable improvement was observed with postinflammatory erythema, pigmentation and atrophic scar.

\*Corresponding author: Ichiro Kurokawa, Department of Dermatology, Acne Clinical Research Center, Meiwa Hospital, 4-31, Agenaruo-cho Nishinomiya, Hyogo 663-8186, Japan, Tel: +81-798-47-1767; E-mail: [kurokawa.i@meiwa-hospital.com](mailto:kurokawa.i@meiwa-hospital.com)

Received February 01, 2016; Accepted February 25, 2016; Published March 03, 2016

**Citation:** Kurokawa I (2016) Comprehensive Multiplexed Therapy for Severe Nodulocystic Acne in Puberty. Health Care: Current Reviews 4: 160. doi: 10.4172/2375-4273.1000160

**Copyright:** © 2016 Kurokawa I. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



**Figure 2a:** Cystic nodules and granulomatous lesions on the forehead, glabella and left cheek.



**Figure 2b:** Nodulocystic lesion has disappeared. Only postinflammatory erythema, pigmentation and atrophic scar was observed.

Laboratory findings showed elevated leukocytosis to a left shift, and slightly elevated CRP. The level of serum testosterone was within normal limits as well as Case 1.

The patient was treated with oral minocycline (100 mg/d), Saireito (Japanese Herb) 8 g/d and topical heparinoid with education for face-wash. After three month, remarkable improvement was demonstrated. Nodulocystic lesion has disappeared. Only postinflammatory erythema, pigmentation and atrophic scar was observed (Figure 2b).

In Japan, isotretinoin is not available for the treatment of acne. For instance, Diaminodiphenylsulfone is used for cystic acne [3]. However, DDS has severe adverse reaction such as anemia, leukocytopenia, and liver dysfunction. Additionally, intralesional corticosteroid has been performed in the treatment for NCA [4]. In the present case, the age ranged from 12 to 15 years old. In this age of puberty, increased androgen level as secondary sexual characteristics might be involved in severe NCA. Saireito for effective treatment for cystic acne has been reported in Japan [5]. Saireito has various effects such as corticosteroid-like effect, suppression of fibroblast proliferation, suppression of reactive oxygen, suppression of infiltration of macrophage and neutrophils, suppression of activation of endothelial cell and so on [5]. Immunomodulation of acne is Th1 shift [6]. Saireito may work against Th1 shift [5].

Comprehensive multiplexed therapy with incision, oral and topical antimicrobials, oral tranilast, Japanese Herb, topical benzoyl peroxide (BPO) and skin care was performed successfully in severe NCA. An implication or avenue for future research might be a controlled trial comparing these complicated multiplexed therapies with tested new chemo-therapeutic interventions in Japan.

#### References

1. Plewig G, Kligman AM (2005) Acne and Rosacea. Springer-Verlag 270-271.
2. Peck G Peck GL, Olsen TG, Yoder FW, Strauss JS, et al. (1979) Prolonged remissions of cystic and conglobate acne with 13-cis-retinoic acid. *N Engl J Med* 300: 329-333.
3. Wakabayashi M, Fujii N, Fujimoto N, Tanaka T (2011) Cystic acne successfully treated with diaminodiphenylsulfone. *J Dermatol* 38: 502-504.
4. Levine RM, Rasmussen JE (1983) Intralesional corticosteroids in the treatment of nodulocystic acne. *Arch Dermatol* 119: 480-481.
5. Kurokawa I (2015) Two cases of cystic acne successfully treated with Saireito. *Phil Kampo* 57: 24-25. (in Japanese).
6. Kurokawa I, Danby FW, Ju Q, Wang X, Xiang LF, et al. (2009) New developments in our understanding of acne pathogenesis and treatment. *Exp Dermatol* 18: 821-832.