

diagnosis and management of skin diseases. Review of skin biopsies allows determination of disease pattern and clinicopathologic correlation.

In Sarawak General Hospital, a tertiary center, 400 skin biopsies were retrospectively reviewed from June 2006 to June 2008. These biopsies were taken from the skin clinic, Sarawak General Hospital; visiting skin clinic, Sibu and Miri General Hospital (both secondary centers) and the leprosy health survey team; all run by same doctors and paramedical personnel. Of these 400 biopsies, 75% ($n = 300$) were taken in Sarawak General Hospital. These biopsies were separately reviewed by a dermatologist and a pathologist before a final diagnosis was made.

The correlation between the pathologist and the dermatologist was high at 92% agreement. A positive clinicopathological correlation was noted in 86.8% ($n = 347$). Other study found a clinicopathologic correlation of up to 75% by the treating dermatologists.^[1] The high correlation seen here might be due to the active participation of the treating dermatologist in reviewing the dermatohistopathological slides and the open discussion between the dermatologist and pathologist.

Table 1 shows the pattern of skin diseases diagnosed by skin biopsies in Sarawak. From this data, it is interesting to note that 14.7% ($n = 59$) of the skin biopsies were drug-related dermatoses, constituting the second commonest skin lesions biopsied. This high proportion of cases might be attributed to the

Table 1: Pattern of skin diseases diagnosed by skin biopsies in Sarawak

Skin disease	Number of cases	Percentage
Benign tumors	71	17.7
Drug-related dermatoses	59	14.7
Infectious diseases	56	14.0
Eczema	37	9.2
Papulosquamous disorders	31	7.7
Malignancies	27	6.7
Connective tissue diseases	24	6.0
Vasculitis	16	4.0
Non infectious granulomatous disorders	11	2.8
Vascular disorders	9	2.3
Urticaria	9	2.3
Non-infectious bullous disorders	6	1.5
Lymphatic disorders	3	0.8
Folliculitis	2	0.5
Non-specific changes	39	9.8
Total	400	100

Dermatopathology of 400 skin biopsies from Sarawak

Sir,
Skin biopsy is an essential investigation for dermatologists. Histopathological findings in skin biopsies frequently assist dermatologist in the

high usage of topical traditional herbal medications in Sarawak. These agents were the culprit in 71.2% ($n = 42$) of cases. Eczematous changes were seen in 55.9% ($n = 33$) of drug-related dermatoses. Psoriasiform changes were seen in 18.6%, ($n = 11$), vasculitic in 13.6% ($n = 8$), lichenoid in 5.1% ($n = 3$), erythema multiforme in 5.1% ($n = 3$) and fixed drug eruption in 1.7% ($n = 1$). Other studies found morbilliform rash constituting majority of cases clinicopathologically.^[2,3] This is in marked contrast with the current study where eczematous changes were the commonest drug-related dermatoses because maculopapular morbilliform rashes due to drugs are not biopsied in Sarawak.

Another interesting finding was the high proportion of cutaneous lymphoma. Cutaneous lymphoma was seen as the third most common malignancy constituting 11.1% ($n = 3$) of the 27 cases of cutaneous malignancies. It ranked behind basal cell carcinoma with 51.9% ($n = 14$) and squamous cell carcinoma with 33.3% ($n = 9$). Malignant melanoma was seen in only 3.7% ($n = 1$) of cases. The malignant melanoma was of acral lentiginous type. In neighboring Singapore, Koh *et al.* noted that basal cell carcinoma make up 55.6% of the 4765 skin cancer cases seen from 1968 to 1997 followed by squamous cell carcinoma with 29.5% and malignant melanoma with 5.9%.^[4] Although the frequencies of basal cell carcinoma and squamous cell carcinoma were almost similar, this study showed that cutaneous lymphoma was more common in Sarawak compared to malignant melanoma. However, due to the small number of cases, this finding cannot be conclusively confirmed.

In conclusion, a high clinicopathologic correlation was noted in Sarawak and the pattern of drug-related dermatoses and cutaneous malignancies seen here differ from other studies.

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