



Cutaneous Adverse Drug Reactions of COVID-19 Vaccines: A Cross-Sectional Study of the Largest Healthcare System in Taiwan

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Sheng Long Tan¹, Yi-Hua Chen¹, Hui-Yu Chen², Shih-Chieh Shao¹

¹Department of Pharmacy, Keelung Chang Gung Memorial Hospital, Keelung, Taiwan

²Department of Pharmacy, Linkou Chang Gung Memorial Hospital, Taoyuan, Taiwan

OBJECTIVES

Potential cutaneous adverse drug reactions (cADRs) associated with COVID-19 vaccinations are well-known. However, comprehensive evaluation including detailed patient characteristics, vaccine types, signs and symptoms, treatments and outcomes from such cADRs are still lacking in Taiwan.

METHODS



Cross-sectional study

- Spontaneous ADR reporting data**
 - From Taiwan's largest multi-institutional healthcare system
- Physicians and pharmacists**
 - Ensured the data quality and completeness of the reported ADR records
- Descriptive statistics**
 - Demographic characteristics
 - Administered COVID-19 vaccines
 - Clinical manifestations
 - Management

RESULTS

Demographic characteristics

- 31.9% cADR**
 - 242 from 759 reported COVID-19 vaccine-related ADRs were identified
- 88.3% Judged as "Possible"**
 - Naranjo Scale
 - Assessment of causality between cADR and vaccine

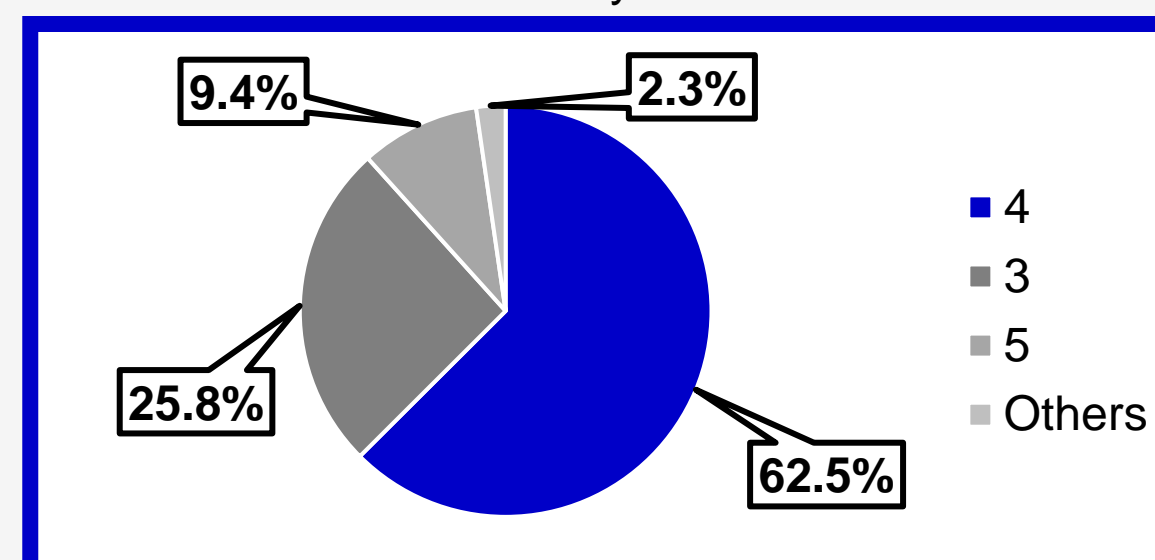


Figure 1: The proportion of each Naranjo score



48.1±17.5 years

Age (mean ± standard deviation)

- The majority of cADRs reported in the 40-64 years old age group

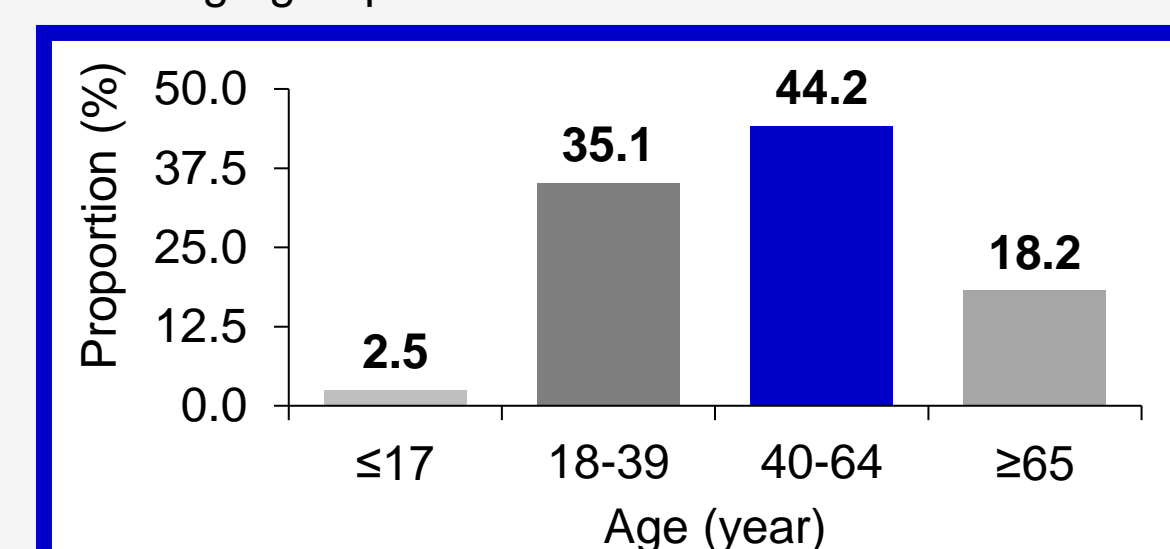


Figure 2: Age distribution



68.2% Women

Gender

- cADRs were more common in female



99.6%

No history of allergy to vaccines

Past history of allergy to vaccines

- Most of the patients had no relevant history

Administered COVID-19 vaccines



58.6% Oxford/AstraZeneca

Vaccine types

- The most reported brand of COVID-19 vaccines was Oxford/AstraZeneca

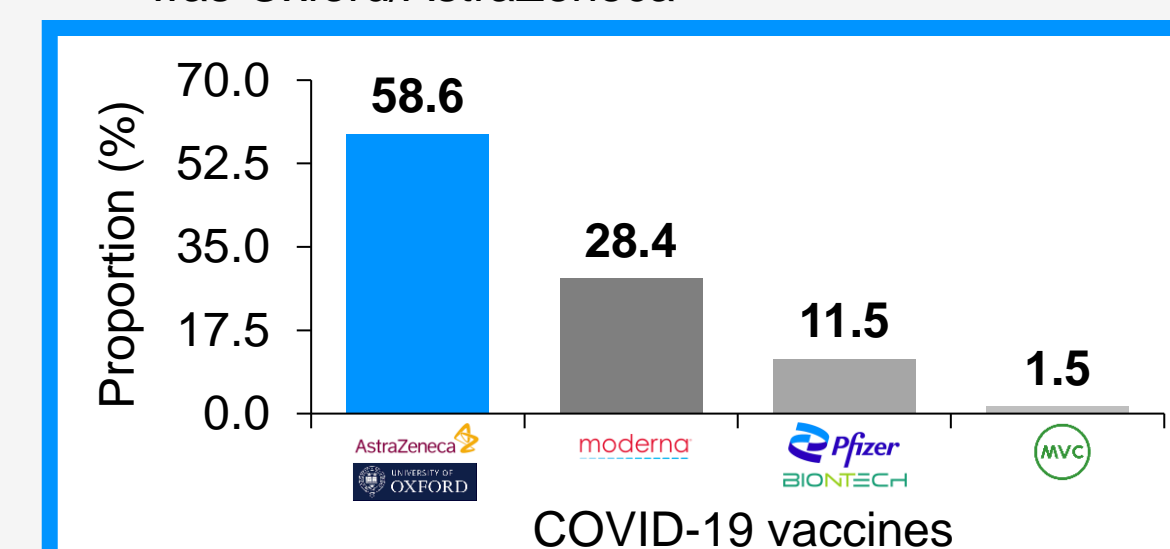


Figure 3: The proportion of each COVID-19 vaccine



77.8% First-dose vaccination

Number of dosing

- Mostly after first-dose vaccination

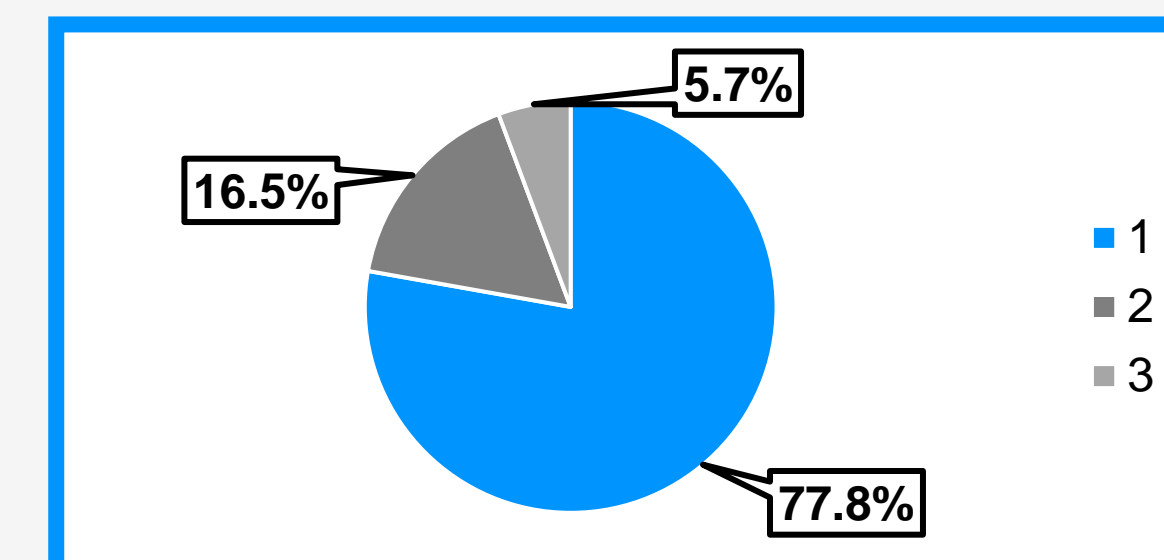


Figure 4: The proportion of each dosing

Clinical manifestations



18.7% Rash/Eruption

Signs and symptoms

- The most frequently reported cADR was rash/eruption

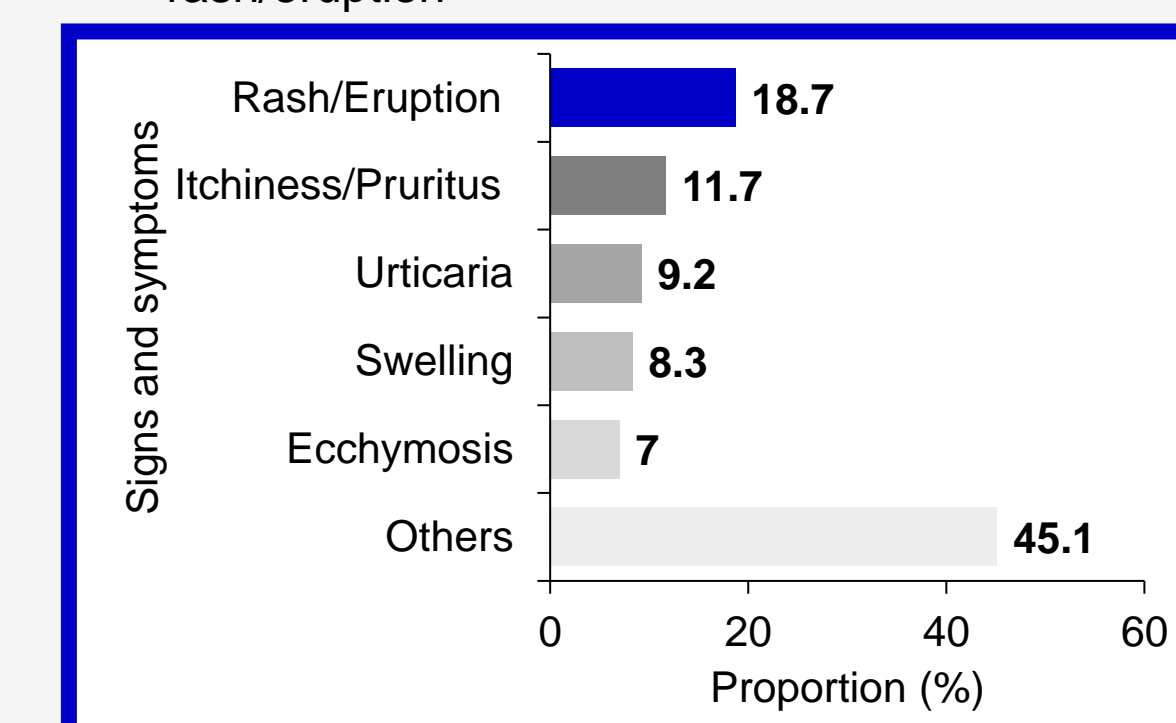
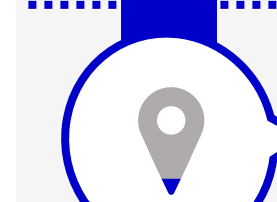


Figure 5: The proportion of each sign and symptom



23.8% Lower limbs

Location

- Mainly affecting the lower limbs

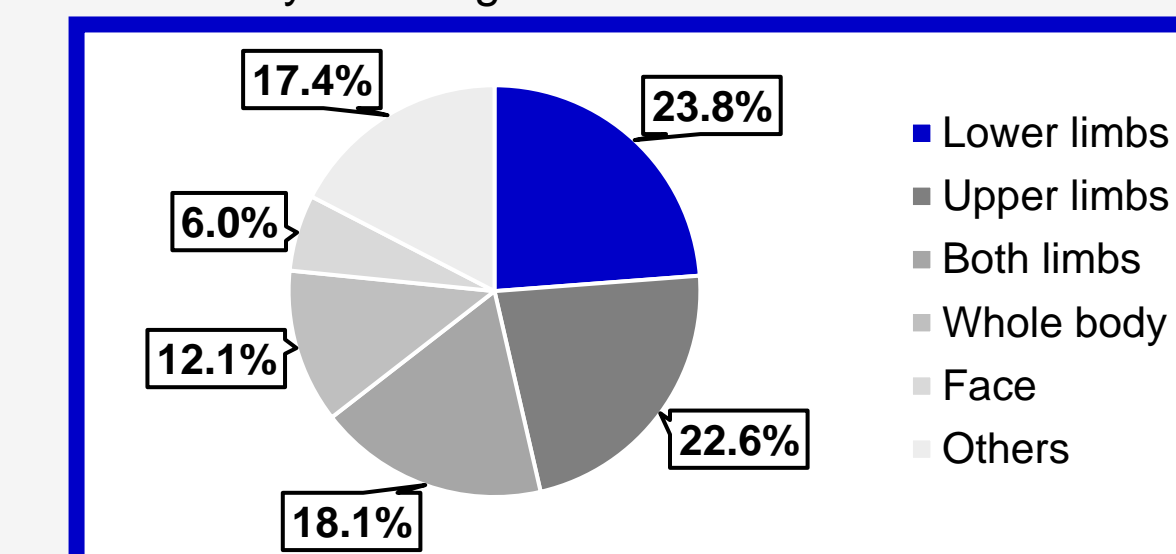


Figure 6: The proportion of each location



5.5 days (Median)

Onset time

- Within 1 to 198 days

Management



65.1% Medical needs

Medications were prescribed for cADRs



23% Oral antihistamines

Medications

- The most prescribed medications for cADRs was oral antihistamines

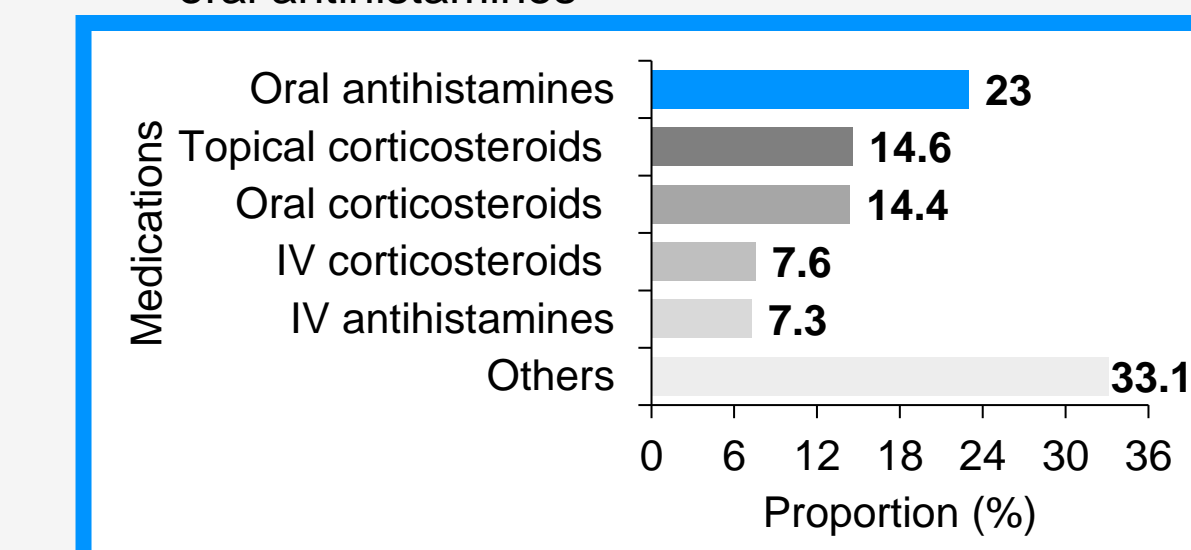


Figure 7: The proportion of each medication



7 days (Median)

Duration for resolving signs and symptoms

- Within 1 to 167 days

CONCLUSIONS

Our findings provide comprehensive details regarding COVID-19 vaccine-related cADRs in Taiwan. Certain groups, especially women and the middle-aged, who reported a relatively higher rate of cADRs, may benefit from pre-vaccination counseling about the risks of cADRs and the use of appropriate medications.

