The genetic screening information and outcomes: Case series reports at the Queen Savang Vadhana Memorial Hospital

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ABSTRACT

Background: According to the genetic screening project with the cooperation between department of Medical Sciences, Ministry of public health and the Queen Savang Vadhana Memorial Hospital to develop better services for patients, the outcomes of this project has not been evaluated. **Method**: Twelve case series were reported by focus on safety or efficacy outcome of two drugs using genetic screening; PEG interferon alpha and Allopurinol. Two cases were monitoring therapeutic outcome of PEG interferon alpha, while the rest ten cases were monitoring safety outcome by screening HLA-B*58:01 for Allopurinol. The information retrieved from computerized hospital data base during 2018-2019. **Results**: The two cases who had genotype cc use PEG interferon alpha effectively. For the rest, nine patients who received Allopurinol, only one had HLA-B*58:01 but no adverse effect occurred, and one did not receive Allopurinol because of HLA-B*58:01 genotype**.** **Conclusion**: Genetics screening information could be helpful in effective and safety patients' outcomes. Further studies are needed to confirm in genetic monitoring in routine work at this setting.

OBJECTIVES

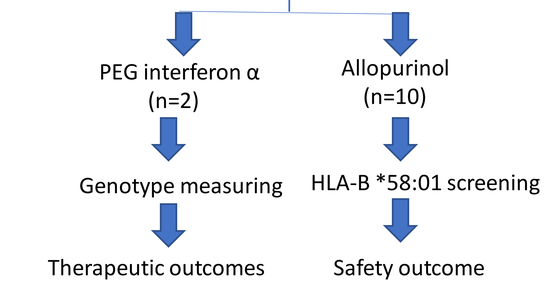
To evaluated the outcome of genetic screening project.

EXPECTED OUTCOMES

- To use this data for conducting well controlled research in the future.
- To use this information for implement the genetic monitoring policy

MATERIALS & METHODS

Twelve case series were reported by focus on safety or efficacy outcome of 2 drugs using genetic screening



The information retrieved from computerized hospital data base during 2018-2019

The information compose of

- Genetic data
- Therapeutic outcomes for PEG interferon α : cure (HCV antigen negative) , improve (Clinical improve, low viral load detected) worse (Clinical worse, high viral load detected or HCV positive)
- Safety outcome for Allopurinol: Adverse event, especially SJS/TEN

RESULTS

From data collection, the results were presented in the following.

PEG interferon α (Table 1)

Table 1 cases using PEG interferon α in Hepatitis C treatment

case	Age	gender	dose	genetics	outcome
1	48	male	Once weekly	Genotype cc (Favorable response genotype)	Improved, no ADR
2	42	female	Once weekly	Genotype cc (Favorable response genotype)	Improved, no ADR

RESULTS

Table 2 cases using Allopurinol for gout

case	Age	gender	dose	genetics	outcome
1	45	male	No Allopurinol	HLB*5801	Improved, no ADR
2	35	male	Allopurinol 100 mg	No HLB*5801	Improved, History of allergy Allopurinol
3	57	male	Allopurinol 100 mg	No HLB*5801	Improved, no ADR
4	43	female	Allopurinol 100 mg (Current dose 300 mg)	No HLB*5801	Improved, no ADR
5	29	male	Allopurinol 100 mg	No HLB*5801	Improved, no ADR
6	69	male	Allopurinol 100 mg	No HLB*5801	Improved, no ADR
7	68	male	Allopurinol 100 mg	No HLB*5801	Improved, no ADR
8	85	male	Allopurinol 100 mg	No HLB*5801	Improved, no ADR
9	95	male	No Allopurinol	No HLB*5801	Improved, no ADR
10	43	male	Allopurinol 100 mg	HLB*5801	Improved, no ADR

DISCUSSION

These case series were supported by several evidences. For PEG interferon α genotyping; the IL28B genotype cc showed favor improve in therapeutic outcomes. (1-5). In case of Allopurinol used; screening for HLAB*5801 would advantage and cost effective to prevent SJS/TEN. (6-10).

Since this study just the case series, the correlation cannot be determined due to small population. However, it leads healthcare professional to concern about genetic screening policy.

CONCLUSION

Genetics screening information could be helpful in effective and safety patients' outcomes. Further studies are needed to confirm in genetic monitoring in routine work at this setting.

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Any questions and cooperation , please contact

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