

A case study on patient management after venipuncture

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Complications from venipuncture can be seen in medical practices. Here, the author reports a case study of a patient who received an injury from falling after blood collection.

Keywords : *Blood collection, Complication.*

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ภาวะแทรกซ้อนจากการเจาะเลือดเป็นสิ่งที่พบได้ในทางเวชปฏิบัติ บทความนี้ผู้เขียนได้
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คำสำคัญ : การจัดเก็บเลือด, ภาวะแทรกซ้อน

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Venipuncture is a basic medical procedure widely practiced in every hospital. ⁽¹⁾ Similar to other medical procedures, complications due to blood collection can be expected. The most common acute complication of blood collection is fainting due to vagal reflex response. ⁽²⁾ Vasovagal reaction is a relatively common complication causing hypotension, palor and occasional syncope. ⁽³⁻⁴⁾ For emergency cases, a bed, oxygen tanks, and a utility cart with drug supplies should be provided in the phlebotomy room. ⁽³⁻⁴⁾

Preventive and corrective actions for adverse effects resulted from blood collection are necessary. ⁽³⁻⁴⁾ In this article, the author discusses a case study on patient management after blood specimen collection.

Case Study

In a mobile unit, venipuncture was performed as a regular practice. After performing a blood collection (antecubital venipuncture, sitting position, 10 cc blood collection) on a factory worker (male, middle aged, slim, normal vital signs), the phlebotomist let him go out for his routine daily worker. Unfortunately, he walked downstairs and felt fainted. Then he fell down from the stories and had got head injury. He had hypotension. He was then sent to the emergency unit of a nearby hospital. He got wound care and improved with out complication.

Discussion

Adverse effects or complications after venipuncture ⁽⁴⁾ can be seen. Although fainting is the most common complication, other serious complications can also be seen (Table 1). Concerning the incidence, syncope occurred in less than 1% of

the patients. ⁽⁵⁾ In this case, the bio-psycho-social considerations will be included.

For biological approach, fainting is a simple physiological response to any insult. Vagal reflex is a simple mechanism of flight-fight system. Fainting and laying down can provide good position, horizontal, for control of blood pressure. Fainting can occur suddenly or slightly delayed such as in this case. Short observation after blood collection is therefore necessary. ⁽³⁾ In addition, first aids equipments and a bed for the patient to lay down should be set including within the mobile unit.

As for psychological approach, the medical personnel-patient relationship can greatly relieve the anxiety of the patient during medical procedure. Anxiety is an important factor contributing to fainting. Needle phobia ⁽⁶⁾ in some patients can be a serious problem and can lead to misunderstanding of the patient's relatives.

As for social approach, complication like in this case can bring legal problem. Medical sue of carelessness due to a complication like the one in this case can be expected. How to manage the case and give the information to his boss and relatives must be considered.

Conclusion

Similar to any medical procedures, complications due to venipuncture can be observed. In this report, a case study of a patient getting injury from falling after blood collection is presented and discussed. Specific preventive and corrective actions for the complications (Table 2) should be set in any venipuncture unit.

Table 1. Complications due to venipuncture.

Phase	Serious	Not serious
Acute	- falling - arrest - delayed stop of bleeding	- fainting
Late	- intra vascular infection - thrombosis	- hematoma

Table 2. Specific preventive and corrective actions for the complications.

Preventive actions	Corrective actions
- setting for proper position of patient	- first aid care
- preparation for bed for laying down	- call for help system for emergency
- preparation for first aid device	- CPR protocols

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