



Bee sting with cortical venous thrombosis

KEYWORDS

Bee sting, Cortical sinus thrombosis, Thrombophlebitis.

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ABSTRACT

A Previously asymptomatic, A 35 year-old female without any comorbid illness was stung by a bee in the left side of the face. She developed intense pain and swelling of the face. She squeezed to remove the sting after an hour. Over the next 12 hours, she had developed facial swelling, headache, and eye pain on left side along with headache and giddiness. A rare case of Bee sting with Cortical sinus thrombosis needs high index of suspicion, site of bite is also essentially important bite close to danger area of face can result in thrombophlebitis and further results cortical sinus thrombosis.

Introduction

Bee (hymenoptera) stings can cause a wide range of reactions, but infections following stings are uncommon.1,2

Case report

A Previously asymptomatic, A 35 year-old female without any comorbid illness was stung by a bee in the left side of the face. She developed intense pain and swelling of the face. She squeezed to remove the sting after an hour. Over the next 12 hours, she had developed facial swelling, headache, and eye pain on left side along with headache and giddiness. The patient went to the nearest healthcare center and was treated symptomatically. She became more lethargic and started developing weakness of left upper limb and lower limbs. As she developed confusion, she was transferred to our institution.

On examination, she was conscious, oriented with slurred speech, febrile and. Ocular examination revealed lid edema, narrow palpebral aperture, chemosis, marked restriction of ocular motility out of proportion to the degree of proptosis, loss of pupillary light reflex, and low-grade optic disc edema with dilated retinal veins on left side. The contralateral eye was normal. In view of headache and ocular findings, a preliminary diagnosis of Cerebrovascular accident was made.

GPE : Moderately built and nourished, conscious, oriented. Pulse - 72 beats/min, regular, normal volume. BP - 120/80 mm Hg in upper limbs, 130/90 mm Hg in lower limbs.

Respiratory rate - 22 cycles/ min.

No pallor, no icterus, no lymphadenopathy.

Height- 152cms cm, Weight- 59 kg, BMI- 21.14kg/m2.

Cardiovascular system: S1, S2 present, no murmurs.

Respiratory system: Normal vesicular breath sounds heard.

Abdomen : Soft, bowel sounds + , no organomegaly.

Central Nervous System: Conscious, oriented, co-operative.

Slurring of speech.

Power – Rt UL- 5/5 Lt UL-2/5

Rt LL-5/5 Lt UL-2/5

DTR's

	BJ	TJ	KJ	AJ
Right	2+	2+	2+	+
Left	3+	3+	3+	2+

Plantar-Left extensor

Sensory system -normal

Routine investigations

Hb - 14 g%, TLC – 6400cells/cumm, DC - N78, L22, ESR - 12 mm/hr.

Blood Urea - 39 mg/dl, Serum creatinine - 1.1 mg/dl.

Serum electrolytes - Na - 137, K - 4, Cl - 106.

Urine routine - normal.

Chest x ray PA View – Normal

ECG - Sinus rhythm with QRS Axis of +60, normal ECG.

2D Echocardiography – Normal.

CT-plain head- normal

MRI –Contrast- swollen non-enhancing cavernous sinus and narrowed internal carotid artery; this was consistent with the diagnosis of Cortical sinus thrombosis consistent with the diagnosis of Cortical sinus thrombosis.

Blood culture: culture specimen from the lesion yielded *Staphylococcus aureus* and *Streptococcus pyogenes*.

DISCUSSION:

Cortical sinus thrombosis is a serious neurological complica-

tion if infection develops in the medial third of the face, a critical area of face with rich venous plexus. Headache is the most common presenting symptom and periorbital edema may be the earliest physical sign.³ In our patient, squeezing the lip after an hour and delay in the removal of stinger might have resulted in more envenomation. The thrombogenic substances of the venom might have induced thrombophlebitis of the facial vein which also might have got infected.⁴ Earlier isolated cerebral and cerebellar infarction following bee sting were reported.^{5, 6}

Infections following bee sting are rather uncommon and no field studies were carried out to establish the extent to which bees are contaminated by pathogenic microorganisms. It is also known that bees are occasionally attracted by garbage, and their hairy abdomen gets contaminated with pathogenic microbes. Direct inoculation of any bacteria into the epidermis can occur from the insect's body or the surface of the victim's skin. Thus, bee sting may facilitate introduction of infection, if the sting remains or not cautiously removed.⁷

Also, scratching due to itching can cause further epidermal injury and intra dermal implantation of pathogenic bacteria. In addition, the local edema may impair lymphatic drainage and reduce clearance of the infection by the immune system. The culture of a specimen from the lesion yielded *Staphylococcus aureus* and *Streptococcus pyogenes*. The strength of the report was the diagnosis of CST by clinical and imaging, isolation of infective agent, and successful management of the case. The high index of suspicion based on the clinical examination, results of imaging and aggressive antibiotic therapy, and early removal of sting may likely prevent fatal outcome.

Conclusion :

A rare case of Bee sting with Cortical sinus thrombosis needs high index of suspicion, site of bite is also essentially important bite close to danger area of face can result in thrombophlebitis and further results cortical sinus thrombosis.

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