Shingles is one of the two different clinical presentations of infection of VZV which is a DNA virus. Humans are a known reservoir for the Varicella zoster virus (VZV). It is very contagious. In latent infection, reactivation of the virus in the dorsal root ganglion due to a previous varicella-zoster (VZV) infection in childhood causes this clinical presentation\(^2\). Latent varicella-zoster virus (VZV) is a disease which usually involves a single sensory nerve or its dermatome affected by aging, immune suppression, stress, and various triggering factors\(^1\). A single dermatome and also the adjacent dermatomes can be involved. Varicella-zoster appears mostly on thoracic, cervical, and ophthalmic dermatomes. Rarely, it is located in the upper and lower extremity dermatomes. In this study, 7 patients with shingles on the foot and sole were examined. It was aimed to emphasize that varicella zoster (zona) may be the cause of foot pain in patients presenting to the emergency department with complaints such as pain, burning and inability to step on standing, and to review the age, gender, underlying factors of the zona cases which are not previously mentioned in the literature.

Keywords: Varicella zoster virus, foot pain, emergency medicine

Methods and Materials

The patients who were admitted to Our Hospital emergency outpatient clinic with complaints such as standing pain, burning, inability to walk between February 2018 and November 2018 were evaluated retrospectively.

Results

Among 526413 patients who admitted between these dates, 93 were diagnosed with varicella zoster. Lesions are located in the lower extremity in 7 of 93 patients. 5 (71.4%) of the 7 patients were male, and 2 (28.6%) of them were female. The mean age of the female patients was 57.25 years (33-72 years). The mean age of male patients was 51 years (35-68). In two patients (28.5%) the lesions were found to be on the plantar side of the foot and in medial section and in 3 patients (42.8%) from the lateral part spreading to the fingers, while in 2 patient (28.5%) the lesions were in the mid-plantar section. The history of the disease was questioned in 5 patients (71.4%). Chronic disease was detected in 5 (71.4%) patients. 3 of the patients had diabetes mellitus and 2 of them had hypertension, and 1 patient had peripheral vascular dis-
ease and 1 patient had cerebrovascular disease. No additional
disease was observed in 2 patients. When stress factors were
questioned, work and familial stress factors were described
by 6 patients (85.7%). All patients presented vesicular les-
ions when they admitted to the emergency department.
Patients were admitted to the emergency department with
complaints of pain (100%), burning sensation (83.3%) and
itching (100%) before the lesions were started. Pain (100%),
rash (100%), burning sensation (77.7%), itching (83.3%)
complaints were described after the lesions occurred. The
treatments were arranged following the diagnosis. At the
end of the treatment, they were referred to the dermatology
polyclinic for the follow-up.

Discussion

HZ (Herpes zoster) is an acute viral infection which is char-
acterized by painful, group tendency of vesicles on one or
more adjacent dermatomes with the reactivation of the latent
virus in the dorsal root ganglia following a childhood chick-
enpox infection, in some cases occurs result of a reduction in
immune response of the host13, 14. Secondary infection of the
rash is important in addition to severe pain in shingles8. In
two of our patients, secondary infection was detected.

The incidence of VZV in healthy people can range from
0.4 to 11 in 1000 per year depending on immune response2.
Some predisposing factors have been identified in the acti-
vation of latent infection. These can be listed as chickenpox,
the status of varicella vaccination, being over 50 years old,
immunosuppressive conditions and drugs, trauma and psy-
chological stress12. In our study, only 2 patients did not have
a history of a chronic disease. Besides, in our 5 patients,
psychological stress was detected due to various reasons.
Shingles show the same rates in male and female sexes5,6. In
some studies, the rates were found to be different. In our
study, there was a difference between genders.

The diagnosis can be made with the presence of prodromal
burning sensation-pain, itching, and shingles rashes.
Throughout the affected unilateral dermatome, the rash is
seen5. It can be diagnosed by using cytopathologic evalu-
ation and polymerized chain reaction in atypical rashes7,8.

A most common symptom of shingles is pain9. Pain is
presented days or weeks before the rashes occur. The pain
usually is described in the form of the burning sensation, tин-
gle and as well as paresthesia, hyperesthesia and also may be
in the form of electric shock2,10. Local pain of the shingles is
severe. Reason for pain is thought to be a result of the stimu-
lation of primary neurons in the skin due to inflammation of
the pain receptors as a result of tissue damage11. The patients
described burning sensation and pain which causes inability
to walk on the feet and sole before the lesions were seen.
Four of our patients reported that they were admitted to the
hospital due to pain several times. But following investiga-
tions in the hospital’s chronic diseases were thought to be the
cause of the pain on the foot. Our patients have presented ve-
sicular lesions additionally to pain, burning sensation, itching
symptoms when they admitted to our emergency department.
Conclusion

Varicella zoster is often seen in advanced age and is mostly a disease that affects the daily lives of patients. Immune insufficiency, malignancies, chronic diseases and stress caused by various factors can lead to reactivation of latent varicella-zoster virus. Diagnosis of shingles on foot which is presenting with pain, burning sensation, inability to walk, is often skipped. It should be kept in mind that there may be shingles on the foot in patients with such complaints.

References
