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ATYPICAL PRESENTATION OF ZONA DURING COVID PANDEMICS: CASE REPORT

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Abstract

Aim: Varicella zoster virus (VZV) is a double stranded DNA virus from herpes virus family. Only infection source is human and it is very contagious. With this case we want to mention about atypical presentation of zona and it should be kept in mind as differential diagnosis for atypically located vesicular lesions.

Case: 50 years old healthcare worker female patient presented to emergency service with paresthesia and coldness of one leg followed by vesicular lesions. Predisposing factors are chronic disease, immunocompromising disease, age more than 60 but for our patient no predisposing factors observed. The COVID Pandemic has brought with it other additional health problems.

Conclusion: With this case, we wanted to show that zona zoster, which we frequently encounter in thoracic and cranial dermatomes, may show atypical involvement and at the same time, the immune system of healthcare workers may be impaired in the fight against the epidemic and cause additional health problems.

Key Words: *Varicella Zoster Virus, atypical presentation, reactivation.*

Резюме

АТИПИЧНАЯ ЛОКАЛИЗАЦИЯ ЗОНЫ ПОРАЖЕНИЯ В ПЕРИОД ПАНДЕМИИ КОРОНАВИРУСНОЙ ИНФЕКЦИИ: ОПИСАНИЕ СЛУЧАЯ

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Цель: Вирус ветряной оспы (VZV) представляет собой двухцепочечный ДНК-вирус из семейства вирусов герпеса. Единственным источником инфекции является человек, вирус очень контагиозен. В описании этого случая мы хотим упомянуть об атипичном представлении зоны поражения вирусом, это следует иметь в виду при дифференциальной диагностике атипично расположенных везикулярных поражений.

Случай: 50-летняя пациентка, медицинский работник, обратилась в службу неотложной помощи с парестезией и похолоданием одной ноги с последующим везикулярным поражением. Предрасполагающими факторами являются хронические заболевания, иммунодефицитные заболевания, возраст старше 60 лет, однако у нашей пациентки никаких предрасполагающих факторов не наблюдалось. Пандемия коронавирусной инфекции принесла с собой другие дополнительные проблемы со здоровьем пациентки.

Вывод: При описании данного случая мы хотели показать, что опоясывающий лишай, с которым мы часто сталкиваемся в области грудной клетки и черепа, может проявляться нетипичным поражением, и в то же время иммунная система медицинских работников может быть подавлена в борьбе с эпидемией, что вызывает дополнительные проблемы со здоровьем.

Ключевые слова: *Вирус ветряной оспы, атипичная форма, реактивация.*

Түйіндеме

КОРОНАВИРУСТЫҚ ИНФЕКЦИЯ ПАНДЕМИЯСЫ КЕЗЕҢІНДЕ ЗАҚЫМДАНУ АЙМАҒЫН ТИПТІК ЕМЕС ОҚШАУЛАУ: ЖАҒДАЙДЫҢ СИПАТТАМАСЫ

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Мақсаты: жел шешек вирусы (VZV)-герпес вирустары тұқымдастарының екі ішекті ДНҚ вирусы. Инфекцияның жалғыз көзі-адам, вирус өте жұқпалы. Бұл жағдайды сипаттауда біз вирустың зақымдану аймағының типтік емес көрінісін атап өткіміз келеді, мұны типтік емес орналасқан везикулярлық зақымданулардың дифференциалды диагнозында есте ұстаған жөн.

Жағдай: 50 жастағы науқас, медицина қызметкері жедел жәрдем қызметіне парестезиямен және бір аяғының салқындауымен, кейіннен везикулярлық зақымданумен жүгінді. Алдын-ала болжайтын факторлар созылмалы аурулар, иммун тапшылығы аурулары, 60 жастан асқан, бірақ біздің науқаста алдын-ала болжайтын факторлар болған жоқ. Коронавирустық инфекцияның пандемиясы пациенттің денсаулығына басқа да қосымша проблемалар әкелді.

Қорытынды: бұл жағдайды сипаттау кезінде біз кеуде және бас сүйек аймағында жиі кездесетін бөртпелер типтік емес зақымданумен көрінуі мүмкін, сонымен бірге денсаулық сақтау мамандарының иммундық жүйесі ідетке қарсы күресте басылуы мүмкін, бұл қосымша денсаулық проблемаларын тудырады.

Түйінді сөздер: жел шешек вирусы, типтік емес түрі, реактивация.

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Юрцевен А., Айдын Я.Й., Айдын К., Хамзачеби Э., Кавальчи Ч. Атипичная локализация зоны поражения в период пандемии коронавирусной инфекции: описание случая // *Наука и Здравоохранение*. 2021. 5(Т.23). С. 257-259. doi 10.34689/SH.2021.23.5.027

Юрцевен А., Айдын Я.Й., Айдын К., Хамзачеби Э., Кавальчи Ч. Коронавирустық инфекция пандемиясы кезеңінде зақымдану аймағын типтік емес оқшаулау: жағдайдың сипаттамасы // *Ғылым және Денсаулық сақтау*. 2021. 5 (Т.23). Б. 257-259. doi 10.34689/SH.2021.23.5.027

Introduction. Varicella zoster virus (VZV) has 2 presentation mechanisms; chickenpocks of toddler and zona zoster at older ages due to reactivation of latent VZV from sensory ganglions. Primary infection is transmitted via respiratory secretions and multiplies at nasopharynx spreading to reticuloendothelial system leading to viremia. After viremia, virus sleeps at sensory ganglions and in the presence of predisposing factors, latent virus reactivates and causes zona. Reactivation mechanism is not well known. Atypically located lesions are rarely seen [1]. We want to point out atypically located zona infection should be kept in mind at patient with no immunocompromising status but intense working hours due to pandemics.

Case: 50 years old female healthcare worker presented to our emergency service with 2 days of fatigue, nausea, abdominal pain. No specific disease except hyperlipidemia. Initial vitals are 36.6 C body temperature, pulse 85 bpm, blood pressure 135/80 mmHg. Physical examination revealed no specific features. Patient had right upper quadrant sensitivity with no wall defence or rebound tenderness. Laboratory values; leukocyte 5071 /µl (58,6% neutrophil), platelet 231, AST (14,4U/l) and ALT (11,1 U/l) and normal values of amylase, lipase, bilirubin, INR and urine. Chest X-ray and abdominal X-ray showed no specific

features and Covid-19 PCR came to be negative. Patient is discharged with suggestions and prescription. Following day patient presented to emergency room with numb feeling and coldness of one leg and vesicular lesions (Picture 1).

Vesicular lesions was spread on right front leg and around the ankle, neurological examination was normal and bilateral pulses were palpable. No specific clinical history and no immune compromising disease led us think about decreased immune response due to intense shifts and emotional stress due to standing away from family. Patient is treated with 30 mg/kg/day aciclovir for 7 day, lesions fade away within 7 days of treatment.

Discussion

Childhood chickenpox resolves with lifelong immunity but virus stays latent at sensory ganglions and may be reactivated at certain circumstances. Zona is a disease which can be seen at any age but especially after age of 60. Incidence increases with age and female gender. Incidence increases by 4% at patients who had zona at least once in lifetime.

Lesions generally do not cross the one half of body and spread is followed by body dermatomes usually one or 2 adjacent dermatomes (3). Our patient has one leg vesicular lesions compatible with literature.



Figure 1: Application zona with vesicular materials showing atypical placement.

Recatavation mechanism is not well known. Virus settles down to back root ganglions during primary infection and reactivates with any predisposing etiology. T3-L3 dermatomes are most frequently effected regions. Parestesia, sensory symptoms, itching and severe pain may be felt 48-72 hours before eruption. Red itchy lesions converts into erythematous maculopapular vesicular lesion [4]. However our patient had an unexplainable abdominal pain and eral presentationm of vesicular lesions within 24 hours of symptoms onset.

Fever and regional lymphadenopathy may accompany lesions. Disease lasts approximately 7 to 10 day. Rarely disease may precede to postherpetic neuralgia syndrome due to chronic irritation of nevre root. Permanent hypo or hyperesthesia of effected dermatome is another chronic sequal of disease. [4]. Our patient's symptoms ceased with treatment. hematological dissemination of VZV may cause pneumonia, hepatitis, encephalitis and DIC [4]. Diagnosis are put with inspection of lesions. For our case, coalescence nature of lesions, one sided involvement and dermatomal spread of vesicular lesions led us to diagnosis of varicella zoster.

Chickenpox and varicella zoster infection are treated with antiviral agents. Nucleotide analogues like valasiklovir and famsiklovir are mainstay agents of treatment [5]. Analgesics and local wound care are recommended.

Conclusion: Immunocompromised patients may present with atypical locations and atypical symptoms. Atypical and severe clinical cases may have higher mortality rates. Immunocompromised patients with atypically located vesicular lesions, VZV recatavation should be kept in mind for differential diagnosis.

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All the authors had access to the data and a role in writing the manuscript.

Ethics approval

Informed consent was obtained from family of the patient prior writing this case report.

References:

1. Ultsch B., Köster I., Reinhold T., Siedler A., Krause G., Icks A., Schubert I., Wichmann O. Epidemiologyandcost of herpeszosterandpostherpeticneuralgia in Germany // Eur J HealthEcon. 2013. 14(6):1015-26. doi:10.1007/s10198-012-0452-1.
2. Drew W.L. Varicella Zoster Virus. Murray Drew, Kobayashi Thomson (eds): Medical Microbiology. Wolfe Medical Publ. London 1990.s512-517
3. Brunell P.A. Varicella. Wyngaarden, Smith, Bennett (eds): CecilTextbook of Medicine. 19th edition. WB. Saunders Comp Philadelphia 1992, s1840- 1842
4. Whitley R.J. Varicella - ZosterVirus. In: Mandell GL, Bennett J.E., Dolin R (eds.). Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases, 7th edition. Philadelphia: Churchill Livingstone; 2010. p.1963-9. [CrossRef]
5. Kara A. Varisella. Zoster Virüs Enfeksiyonlarında Asiklovir Kullanımı. Asiklovir böbrekler aracılığıyla elimine edildiğinden, hastaların sıvı alımlarının sağlanması ve böbrek yetmezliği olan hastalarda doz ayarlanması yapılması gereklidir (8). 8. Heiningen U, Seward JF. Varicella // Lancet J Pediatr Inf 2007; 1: 162-6 2006; 368: 1365-76. [CrossRef]

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