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Regional trends of varicose veins incidence in Kazakhstan

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Summary Slide

Background. Varicose veins of the lower extremities (hereinafter VLE) are a very common problem, which occurs due to the incompleteness of recognition of primary and secondary VLE, which is often overlooked by healthcare professionals. The prevalence of this pathology is higher in socio-economically developed countries than in underdeveloped ones.

Aim. To study of VLE incidence trends in Kazakhstan in 2009–2018.

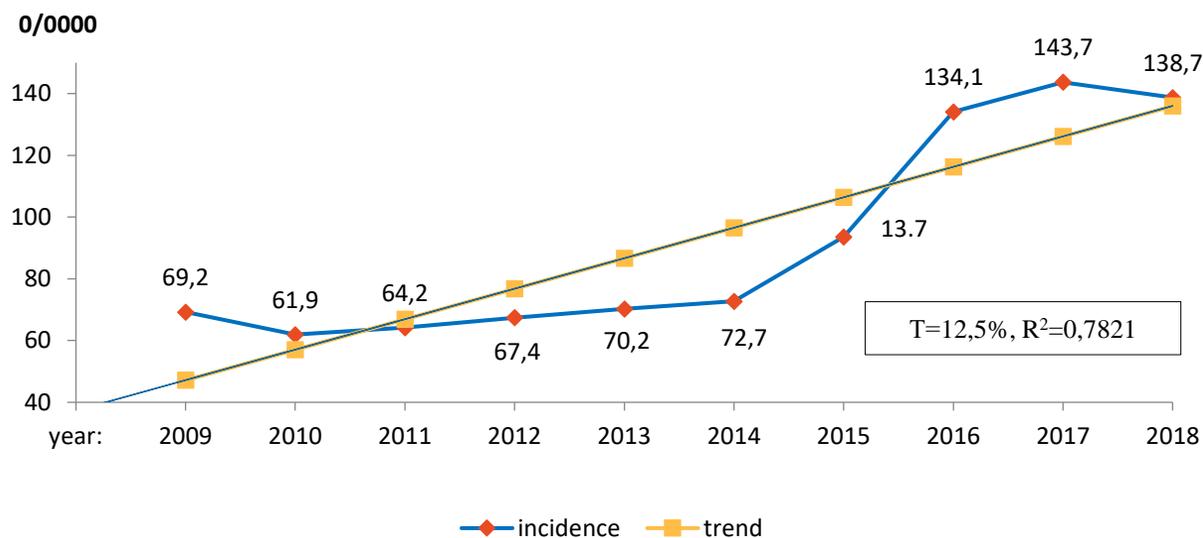
Methods. The retrospective study covered the data of the Ministry of Health of the Republic of Kazakhstan for 2009–2018 – the annual form No.12 related to the new cases of VLE (ICD10–I83). Extensive and rough indicators of morbidity are determined by the generally accepted methodology used in modern statistics. The mean value (M), the mean error (m) and the average annual rates of increase and decrease ($T_{pr/lo}, \%$), 95% confidence intervals (95% CI) were calculated.

Research Results

In the study period, 158 151 cases of VLE were registered for the first time in the republic in which 37 670 (23.8%) and 120 481 (76.2%) cases are among men and women, respectively. The average annual incidence rate of VLE (both sexes) in the republic was 91.6 ± 9.6 per 100 000 of the total population (95% CI=72.8-110.3⁰/₀₀₀₀). In the dynamics, the incidence rates tended to grow from 69.2⁰/₀₀₀₀ in 2009 to 138.7⁰/₀₀₀₀ in 2018. The average annual growth rate was $T_{pr} = +12.5\%$, $R^2 = 0.7821$.

Then, we reviewed the regional VLE incidence trends.

Research Results



Republic of Kazakhstan

- The **upward** trends were registered in
- the South Kazakhstan ($T_{pr}=+40.6$, $R^2=0.7599$),
 - Kyzylorda ($T_{pr}=+28.3$, $R^2=0.5900$),
 - Mangystau ($T_{pr}=+22.4$, $R^2=0.156$),
 - Almaty city ($T_{pr}=+20.2$, $R^2=0.7119$),
 - Zhambyl ($T_{pr}=+18.0$, $R^2=0.8689$),
 - East Kazakhstan ($T_{pr}=+16.5$, $R^2=0.6908$),
 - Astana city ($T_{pr}=+9.7$, $R^2=0.5299$),
 - Almaty ($T_{pr}=+20.2$, $R^2=0.5567$).

The **downward** trends were registered in

- Atyrau ($T_{lo}=-22.8$, $R^2=0.5741$),
- Aktobe ($T_{pr}=+2.2$, $R^2=0.1117$),
- Akmola ($T_{pr}=+3.8$, $R^2=0.3554$),
- Kostanay ($T_{pr}=+4.5$, $R^2=0.3095$),
- Pavlodar ($T_{pr}=+4.6$, $R^2=0.4451$),
- North Kazakhstan ($T_{pr}=+5.6$, $R^2=0.5315$),
- Karaganda ($T_{pr}=+5.7$, $R^2=0.5491$),
- West Kazakhstan ($T_{pr}=+8.4$, $R^2=0.5119$).

Conclusion

Thus, the established regional trends in the incidence of VLE indicate high rates in regions with a developed industry. The high incidence of VLE in our country emphasizes the importance of timely diagnosis and prevention, the need for new treatment technologies that can be used not only by cardiovascular doctors, but also by general surgeons and even doctors of other specialties.