



Hypertension treatment in obese patients with metabolic syndrome and type 2 diabetes Analysis of the therapy and the therapeutic inertia in outpatient's study

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Abstract

We have analyzed the database of 1595 consecutive obese and overweight patients visiting our department of cardiology and internal medicine clinic in years 2005-2014. The analysis included 13990 visit records, average number of visits per patient was 8,5+-7,0. Our goals were to evaluate effectivity of hypertension treatment as for as drug choice, decrease of sBP and dBP associated with certain drug, drug combination and therapeutic inertia in patients with metabolic syndrome and/or diabetes mellitus. Final number of patients for analysis who fulfilled inclusion criteria for interpenetration of both diagnostic circles was 570.

Results. By hypertension monotherapy were treated 15% patients, by 2-4 drug combination therapy 70% and by 5-6 drug combination 15% patients. The most frequent used drugs were perindopril (perin), nitrendipin (nitre), amlodipin (amlo), telmisartan (telmi), hydrochlorothiazid (hydro), rilmenidin and nebivolol (used >100 patients). The most significant decrease of sBP was associated with treatment by nitre, hydro, telmi and urapidil (>19mmHg). The most significant decrease of dBP was associated with treatment by nitre, hydro, telmi and verapamil (>10mmHg). The most significant decrease of both sBP and dBP was associated with treatment 3 drug combination of telmi+hydro+spironolacton (41 resp. 16mmHg), telmis+hydro+nitre (34 resp. 15 mmHg) and telmi+hydro+urapidil (34 resp. 15 mmHg). At the last visit 281 from 413 patients at the first visit have had sBP >140 mmHg (68%) i.e. sBP control was 32%. At the last visit 76 patients from 217 at the first visit have had dBP >90 mmHg (35%) i.e. dBP control was 65%.

Therapeutic inertia was calculated by evaluating of proportion of visits at which sBP was about the target for eligible visits minus the proportion of visits where the change was made in antihypertensive (AHT) medication (either medication type or dose) over the number of eligible visits, with the resultant value multiplied by the mean of difference between actual sBP and target value at clinic visits:

$TIQ = ((\%>TARGET - \% \Delta AHT / \text{visits}) / \text{visits}) * \text{mean sBP} - \text{target sBP}$.

TIQ was counted at first 200 consecutive patients and the average value was 57,30+-147,20.

Conclusion. The study presents the real data concerning the difficulties of hypertension treatment at obese and overweight patients with concomitant metabolic syndrome and/or 2 type diabetes mellitus. SBP was controlled at 32% patients only. The study results allow to evaluate effectivity of hypertension treatment as for as drug choice, decrease of sBP and dBP associated with certain drug, drug combination and therapeutic inertia in patients with metabolic syndrome and/or diabetes mellitus. The score of therapeutic inertia evaluation should contribute to the improvement of hypertension controle and should be a part of the quality assessment in hypertension management.

Biography

Prof. Dr. Stefan Farský was a Cardiologist with special interest in cardiovascular prevention and hypertension. Fellow of European Society of Cardiology since 1991. National Fellow of the Specialist Certification of Obesity Professionals in Europe (EASO) since 2005. Chairman of Slovak League against Hypertension since 1997, committee member of Slovak Hypertension Society, long-term committee member, vice president and honorary member of Slovak Society of Cardiology, now the chairman of the working group for cardiovascular rehabilitation.



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