galenIQ 721 unambiguously possessed a shorter disintegration time due to a higher content of GPS, which is more soluble in water than GPM [1].

Figure 5 lists the values of the strength of compacts containing active ingredients at the compression force of 10 kN. The presence of active ingredients decreased the strength of tablets. The strength of tablets containing acetylsalicylic acid was higher, which could be theoretically assumed, due to better compressibility of the active ingredient resulting from the prevailing mechanism of compaction by plastic deformation. Ascorbic acid is compressed by fragmentation of its particles and this mechanism does not guarantee good compressibility and strength of compacts [8]. Within the framework of the employed dry binder and lubricant, there were no marked differences between the values of strength of tablets.

Figures 6 and 7 show the values of disintegration times of compacts with ingredients. The Graphs are divided into two, as the values of disintegration times of compacts containing ascorbic acid are markedly lower due to its good solubility in water. In the compacts with ascorbic acid, the tablets containing the substance galen IQ 720 possessed a longer disintegration time due to its lower solubility. In both cases, the compacts with stearate disintegrated longer than those with Pruv. The tablets containing acetylsalicylic acid possessed long disintegration times, high above the pharmacopoeial limit of classic tablets (15 min) because of bad solubility of acetylsalicylic acid. A shorter disintegration time was observed in the compacts containing galen IQ 721 with the use of the same lubricant. The disintegration time was longer in the case of both substances with less hydrophobic Pruv, though there were no marked differences in the strengths of tablets. A longer disintegration time would be theoretically assumed in the tablets containing magnesium stearate, which is more hydrophobic.

The compressibility of both types of directly compressible isomalt is the same, but when we need prepare the tablets with a shorter disintegration time, then dry binder galen IQ 721 is more suitable use.

The study was supported by the grant MSM 0021620822 and by the firm PALATINIT GmbH Germany, which supplied the samples of the dry binders tested.

REFERENCES

1. **Bolhuis, G. K., Armstrong, N. A.:** Pharm. Dev. Technol., 2006; 11, 111–124.
2. PALATINIT GmbH: galenIQ™ – The smart excipient, Fir. Lit., 2007, Web: htpp://www.beneo-palatinit.com [1.11.2007].
3. **Ndindayino, F., Henrist, D., Kiekens, F., Van den Mooter, G., Vervaet, C., Remon, J. P.:** Int. J. Pharm., 2002; 235, 1–2, 149–157.
4. **Fell, J. T., Newton, J. M.:** J. Pharm. Sci., 1970; 59, 5, 688–691.
5. **Bos, C. E., H. Bolhuis, H., Van Doorne, Lerk, C. F.:** Pharm. Weekbl., 1987; Sci. Ed. 9, 274–282.
6. **Belousov, V. A.:** Khim. Farm. Zh., 1976; 10, 105–111.
7. **Luhn, O.:** Manuf. Chem., 2006; June: 36–38.
8. **Bolhuis, G. K., Chowhan, Z. T.:** Materials for direct compaction. In: Alderborn, G, Nystrőm, Ch. eds. Pharmaceutical Powder Compaction Technology. Inc.: New York: Marcel Dekker 1996; 486–500.

ZPRÁVY

XLIX. sympozium z historie farmacie a veterinární medicíny

Sekce dějin farmacie České farmaceutické společnosti a Společnosti pro dějiny věd a techniky, České farmaceutické muzeum, středisko Univerzity Karlovy v Praze, Farmaceutické fakulty v Hradci Králové, Česká lékárnická komora a Veterinární a farmaceutická univerzita Brno pořádají dne 4. listopadu 2009 od 10 hodin do 16 hodin XLIX. sympozium z historie farmacie a veterinární medicíny na téma **Významné farmaceutické a veterinární osobnosti u nás i ve světě.** Sympozium se koná v Kabinetu dějin Ústavu cizích jazyků a dějin veterinárního lékařství v budově č. 32 kampusu VFU Brno, Palackého 1-3 – podkroví.

Bližší informace: PharmDr. Martina Lisá, PhD.
tel.: 224 966 700, fax.:224 966 703
e-mail: lisa.martina@vfn.cz