INTRODUCTION
The ethmoid sinus as an element of the paranasal sinus system is characterised by considerable individual variation. There are 3 to 17 cells per side [8]. Computed tomography (CT) has long been applied in the examination of paranasal sinuses, including ethmoid air cells [2, 3, 10].

The relationship of the anterior ethmoid cells to the lacrimal fossa was defined on the axial images that were obtained of 394 ethmoid sinuses (Fig. 1). The sinuses were divided into 3 types: Type I — no ethmoid cells located anteriorly to the posterior lacrimal crest on transverse images (Fig. 2); Type II — ethmoid sinuses extend anteriorly to the posterior lacrimal crest but remain behind the suture at the anterior edge of the lacrimal bone (Fig. 3); Type III — anterior ethmoid cells exceed the level of the lacrimal bone suture (Fig. 4) [4, 5]. Bilateral symmetry of the ethmoid sinuses was also observed.

MATERIAL AND METHODS
The material consisted of 197 CT examinations performed in the years 1995–2002 in the 2nd Department of Radiology of the Medical University of Lublin by means of Somatom AR.T (Siemens, Erlangen, Germany) CT scanner. For the purpose of this study Caucasian adult patients were qualified who had been referred for CT examinations due to initial diagnosis of ophthalmological lesions and who had no obvious pathology in the paranasal sinuses. The examinations were performed in 2-mm contiguous axial scans.

key words: ethmoid sinus, computed tomography
RESULTS
The most common type of ethmoid morphology was Type II, found in 38.32% of the cases. Type III occurred in 32.49% of the patients, while the smallest sinus (Type I) was detected in the remaining 29.19% of the cases. In 19.2% of the cases asymmetry of the bilateral ethmoid anatomy was noted. Most frequently Types II and III co-existed (34 persons), while simultaneous occurrences of Types I and II as well as Types I and III were both noted in 2 persons. No statistically significant correlation between the CT type of ethmoid sinus morphology and existing sinus inflammatory pathology was observed.

DISCUSSION
Knowledge of the individual anatomy of the ethmoid sinuses is indispensable in patients referred for surgical procedures and interventions in the of the lacrimal sac and nasolacrimal duct system in order to avoid the possibility of entry into an ethmoid sinus while performing the procedure [2, 5, 6, 11]. Initial entry into the ethmoid sinuses during dacryocystorhinostomy is assessed as reaching 46% [11]. In a Chinese study of the anatomical relationship between the anterior ethmoid and the fossa of the lacrimal sac in 16 adult cadavers Type I accounted for 31.2%, Type II for 50% and Type III for 18.8% of the cases [3]. According to a Korean series of 53 persons (106 lacrimal fossas) 6.6% presented Type I, the majority (71.7%) qualified as Type II, and the remaining 21.7% were accounted for by Type III eth-
moid morphology [2]. In the present material the differences between the types were less marked. According to some authors the interposition of the anterior ethmoid air cells between the lacrimal sac and the nasal cavity occurs frequently in the Western the population (up to 41%) [1]. However, a comparative study of Western and Asian adult patients demonstrated the anterior extension to the lacrimal sac in 22% and 45% respectively and the difference was statistically significant [9]. Asymmetry of the position of the air cells was noted in 22.6% of cases according to Cho et al. [4] and these findings were similar to our own observations (19.2%).

In the material examined in this study no statistically significant correlation was observed between the CT type of ethmoid sinus morphology and existing sinus inflammatory pathology. However, it is evident that the anterior ethmoid plays an essential role in the pathogenesis of the paranasal sinuses diseases, as any disease changes in this area usually cause obstruction in the ventilation of the maxillary and frontal sinuses [7].

On the basis of the results obtained it may be concluded that CT examination was useful in the evaluation of ethmoid sinus morphology in respect to the lacrimal fossa. The CT assessment of ethmoid morphology types greatly aids in the planning and performance of lacrimal system surgical procedures.

REFERENCES