I really want to congratulate Dr. Morizono on his excellent work. Dr. Morizono examined the effect of a bias tone (50 Hz) upon the amplitude and latency of AP elicited by a test tone (8 kHz tone burst) in normal and hydropic animals. Although both the amplitude and latency in normal animals were greatly affected by the phase shift of the basilar membrane produced by a bias tone, hydropic animals did not exhibit such changes. Dr. Morizono also observed these phenomena in patients of Meniere's disease and explained that this test was available to detect the presence of the hydrops in the human ear. I think his finding is very important and valuable for the study of the pathophysiology in Meniere's disease.

I also have a great interest in the electrophysiological findings in hydropic ears and would like to introduce my recent personal experiments on the hydropic animals. The endolymphatic hydrops were made by obliterating the endolymphatic sac of the guinea pig and the electrophysiological examination was performed in 1, 2, 4 and 12 weeks postoperatively. The magnitudes of EP, CM and AP were decreased in the 4 and the 12 weeks animals, though they were within normal limits in earlier stages. SP, on the other hand, had already changed within the first week and returned to the normal value thereafter. Histological examination in the one week animals revealed considerable distention of the saccular wall but an almost normal Reissner's membrane. I think the increment of the endolymph volume was not present at this stage but the pressure in scala media was probably increased. In the later stage when EP, CM and AP were inhibited, the Reissner's membrane was markedly distended and the endolymph volume as well as the pressure was increased.

The effect of a bias tone upon AP seems to be due to the increase of the volume and/or pressure. I think the time factor mentioned above should be taken into consideration in a discussion on the effect of the hydrops upon the cochlear potentials. Accordingly I would like to ask following questions to Dr. Morizono.

1. Did you observed any difference according to the time elapsed after surgery?
2. Which do you think is the etiological factor pressure or volume?