通过肾脏病患者听力测定结果探讨肾与耳的关系

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内容提要 采用日本产51A-T72N纯音测听计，对51例不同类型肾脏病患者作了常规纯音测听检查。结果有43例患者有不同类型、不同程度的听力障碍。分析其机理可能为肾脏病时水肿、低蛋白血症等因素导致感音装置的循环不良；或肾功能不全时血内毒物积聚，影响内淋巴及听毛细胞，引起神经性聋。

肾与耳的关系，中医学认为肾开窍于耳，耳主听觉，依赖于肾的充养，而肾虚则可有耳鸣、耳聋，可见二者间关系至为密切。据此，我们对51例肾脏病患者，做了电测听检查，借以观察肾与耳的关系，现小结如下。

临床资料

51例患者中男34例，女17例。年龄14～60岁，平均29.5岁。肾病综合征24例，肾功能不全14例，慢性肾炎5例，急性肾炎4例，紫癜性肾炎1例，狼疮性肾炎3例。患者既往使用对肾有损害的药物(如氨基糖甙类抗生素)均不超过2周均无耳病史。除3例外，均无明显听力减退。

测定方法

采用日本产51A-T72N纯音测听计，清晨早餐后，患者安静卧床1小时，进行常规纯音测听检查，测听室内噪音<25分贝(dB)。

结 果

一、测听判断标准：(1)听力正常：平均听力损伤<15dB(即听阈<15dB)[1]，>15dB为听力障碍。(2)低频听力障碍：是指125、250、500Hz三频率的平均听力损伤>15dB。(3)平坦型听力障碍：是指500、1000、2000Hz三频率的平均听力损伤>15dB。(4)高频听力障碍：指2000Hz处曲线下降直至8000Hz，和另一种在2000、4000、8000Hz呈V型切迹，听力损伤>15dB。

二、结果：51例中听力正常者8例(15.7%)，双耳听力障碍者30例(58.8%)，单耳13例(25.5%)，听力障碍发生率约84.3%。如以耳数表示则有障碍者73耳，正常者29耳。

听力障碍与年龄关系：14～25岁听力障碍者24例，26～35岁6例，36～45岁4例，46～55岁8例，56～65岁1例，共计43例。

听力损伤分型(按有听力障碍的73只耳数计)：高频听力障碍41耳(56.2%)，低频听力障碍23耳(31.5%)，平坦型听力障碍9耳(12.3%)。以高频听力障碍为多，且较严重，在8000Hz处的平均听力损伤为53dB。

不同疾病听力障碍情况：肾病综合征24例中有21例，肾功能不全14例中有12例，慢性肾炎5例中有4例，急性肾炎4例中有3例，紫癜性肾炎1例，狼疮性肾炎3例中有2例有听力障碍。由于各疾病的例数均较少，因而尚不能说明与各型听力障碍间的关系。

讨 论

一、生理情况下，听力随年龄的增长而逐渐减退。肾小球病以年轻人好发，本组也以年轻病例居多(平均年龄29.5岁)，而听力障碍的发生率之高，可能是与肾脏疾病本身有关，而

与年龄或其他因素关系不大[2]。

二、听力障碍以高频者居多且较重，低频者较少较轻，这种高频性耳聋原因是否与低蛋白血症、水肿以及相对的血管内脱水，而致感音装置供血不良和循环障碍有关，或是在肾功能不全时血液中代谢毒物的积聚，使内淋巴成分发生改变，进而影响克替氏器的听毛细胞，导致感音性聋，有待进一步探讨。

三、有听力损伤的43例中仅有3例自觉有听力减退，余者均无临床症状，这是因为只有在语音频率(500、1000、2000Hz)平均损伤>30dB时，患者才会有主观感音障碍。这也就提醒我们对肾脏病患者最好常规作听力测定，以便发现隐匿性的听力减退，而防止其加重。

四、中医学对于肾的概念是广义的，认为肾是五脏之一，是促使人体生长发育、生殖及水液代谢平衡的重要脏器，相当于现代医学泌尿、生殖系统和部分内分泌神经系统的功能(这种比喻不一定很恰当)。本文中指的肾脏疾病显然只不过属于中医学肾病的一部分，在此仅提供一点理论上的参考。

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精神分裂症患者春分秋分脉图的昼夜节律变化(摘要)

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昼夜节律是生物体对外环境周期变化的一种反应。本文报道精神分裂症(精分)患者春分秋分节气脉图主波(H_1)的昼夜超节律现象。借以探索精神病病因和抗精神病药物的影响。

临床资料 精分患者30例，男女各15例，平均年龄32.47±4.51岁；病程12.20±5.57年，均无心血管疾患，其中男女患者各有7例停药4天，8例仍服抗精神病药物。

方 法 实验分别于1984年秋分和1985年春分进行。应用MX—3型脉象仪和心电心音Ⅱ导记录仪，同步记录Ⅱ导联心电图和左关脉图。被试者保持正常生活起居，每4小时1次连续记录5个左关脉图，测算各参数均值。用余弦法 $Y=M+A\cos(wt+\phi)$ 将均值拟合成余弦曲线，进一步用极坐标图检验节律是否有统计学意义。

结 果

一、春分节气精分患者H_1的昼夜节律，不论停、服药组精分男患者的H_1在春分一昼夜内均出现2次峰值，周期为12小时($P<0.05$)，服药患者的峰相位比停药组滞后0.57小时。女患者脉图H_1的昼夜节律周期为24小时($P<0.01$)，停、服药组峰相位相差无几。男女患者的95%置信区椭圆均未复盖圆心，提示节律有统计学意义。而正常男青年H_1的昼夜节律周期为24小时($P<0.05$)，峰相位比精分患者滞后，峰值也显著大于男患者($P<0.01$)。

二、秋分节气精分患者H_1昼夜节律变化。停、服药组男患者的H_1在一昼夜内呈现12小时节律($P<0.05$)，服药组峰相位比停药组超前4.54小时；女患者的周期也为12小时($P<0.05$)，服药组峰相位比停药组超前2.15小时。但是正常男青年秋分节气的H_1昼夜节律周期为24小时，峰相位也滞后于男患者，峰值显著大于男患者($P<0.01$)。

三、精分患者脉图昼夜变化。春分的脉位男患者以6:00最浮，与正常男性(2:00最浮)有明显差别。平旦至日中，男患者的H_1逐渐减小，重搏前波、降中峡和主波宽度逐渐加大，与健康人严重反向。除了脉位与春分相似外，秋分的深夜至凌晨，男患者H_1逐渐升高，平旦至日中，精分男女患者的H_3/H_1、H_4/H_1，和W/T比值逐步增大，亦与健康人反向。

讨 论 时间生物学研究表明健康人体的活动大多呈现24小时昼夜的生理节律，精分患者昼夜H_1出现12小时的超节律，抗精神病药物没有影响节律的周期，只是改变了节律的相位，可能影响了DA受体，肾上腺素α、β受体峰值的相位。春分节律不同于秋分节律，可能这些受体在一年内还存在季节节律。此外，精分患者24小时脉波振幅明显低于健康人，脉图参数与健康人严重反向，提示精分患者脉图的昼夜节律属病理性的。

III showed significant effective rates of 49.50%, 18.82% and 32.18% respectively; moderate effective rates of 34.65%, 48.24% and 49.43% respectively; and total rates of effectiveness of 84.15, 67.06% and 81.61% respectively. The authors found significant statistical difference between group I and II ($P<0.005$) and of no statistical difference between group I and III ($P>0.05$). The results showed that the effects of compound SAC were better than ZAP, and similar to that of methaqualone. EEG analysis carried out while sleeping confirmed the effects mentioned above. Low toxicity(LD_{50} 10.7 g/kg) of compound SAC was found through animal experimentations. No towards reactions were revealed in clinical trials except nausea in 3 cases. Heart rate and blood pressure changed lightly in a few cases.

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Observation on Platelet Aggregation in Retinal Vien Occlusion

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The authors studied the maximum platelet aggregation curve (PAgT max%) in 25 patients of retinal vien occlusion (RVO) before treatment with TCM and compared with 30 normal adults as controls. The results of PAgT max% induced by 1.0 μg/ml adrenaline were 67.44±20.91 in 25 patients of RVO, and 54.30±12.66 in normal adults, when induced by 0.6 μmol ADP there were 65.68±11.25 and 45.37±14.57 respectively. It showed higher than normal value in 20 out of 25 patients of RVO. The results indicated that there was a significant correlation with the RVO and raising of PAgT max% ($P<0.01\sim0.001$), but there was no significant difference between male and female groups ($P>0.05$).

After treatment with TCM, 14 out of the 20 abnormal PAgT max% cases were examined, the results of PAgT max% induced by 1.0 μg/ml adrenaline reduced from 70.50±7.32 before treatment to 50.93±19.40 after treatment, and by 0.6 μgmol ADP reduced from 70.86±8.85 before treatment to 46.21±10.88 after treatment. The treatment with TCM seemed to convert the high PAgT max% to normal value and also improved the symptoms and signs.

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Exploration between Shen(肾)and Ear by Auditional Determination of Renal Disease Patients

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Hearing determination of 51 cases had been made to observe and explore the TCM pathogenic relation between the collateral channals of Shen and ears. Model 51A-T72N pure tone auditional determinator was used. For each case, routine auditional determination was made after rest in bed quietly for an hour after breakfast. The determinating results were divided into normal (average hearing lose<15dB), low frequency, high frequency and plain-typing hearing loss.

Results: Among the 51 cases, 8 cases were normal hearing (15.7%), the hearing loss cases were 43 (84.3%); 30 cases were double-ear hearing loss (58.8%); 13 cases were single ear hearing loss (25.5%). Cases of renal diseases frequently occurred among the young (in this group, average age was 29.5 years). Such high incidence was obviously non-physiological, but related to the renal disease itself. More serious hearing damage were seen and were in high frequency. Whether or not it was caused by hypoalbuminaemia, oedema and deprivation in blood vessel leading to disorder of circulation of sound sensitizen, or accumulation of toxin owing to renal dysfunction, or changing composition of endolymph influencing the hearing bristle cells, further research should be done in the near future.

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