**Table S2.** The association between tryptophan (TRP), kynurenine (KYN), and 3-hydroxykynurenine (3HK) concentrations in the brainstem and bone properties in 5/6 Nx rats.

|  |  |  |  |
| --- | --- | --- | --- |
|  | TRP | KYN | 3HK |
| *Bone biomechanics* |
| Stiffness | r = 0.209NS | r = -0.115NS | r = -0.084NS |
| Yield load | r = 0.267NS | r = 0.001NS | r = -0.327NS |
| Displacement at the yield load | r = 0.176NS | r = 0.009NS | r = -0.080NS |
| Ultimate load | r = 0.113NS | r = 0.100NS | r = -0.156NS |
| Displacement at the ultimate load | r = -0.133NS | r = -0.035NS | r = 0.173NS |
| Work to fracture | r = -0.148NS | r = -0.186NS | r = 0.017NS |
| *Bone geometry* |
| Tibial weight | r = 0.283NS | r = 0.064NS | r = -0.102NS |
| Tibial length | r = 0.288NS | r = 0.230NS | r = -0.084NS |
| Anterior-posterior periosteal diameter | r = 0.250NS | r = -0.337NS | r = -0.315NS |
| Medial-lateral periosteal diameter | r = 0.154NS | r = -0.364NS | r = -0.105NS |
| Anterior-posterior endosteal diameter | r = 0.285NS | r = -0.342NS | r = -0.467NS |
| Medial-lateral endosteal diameter | r = 0.115NS | r = -0.391NS | r = -0.226NS |
| Wall thickness | r = 0.128NS | r = 0.081NS | r = -0.061NS |
| Cortical index | r = -0.025NS | r = 0.320NS | r = 0.205NS |
| Cross-sectional area | r = 0.205NS | r = -0.038NS | r = -0.195NS |
| Cross-sectional moment of inertia | r = 0.368NS | r = -0.319NS | r = -0.387NS |
| Mean relative wall thickness | r = -0.092NS | r = 0.331NS | r = 0.209NS |
| *Bone mass density* |
| Archimedes’ density | r = 0.152NS | r = -0.003NS | r = 0.106NS |

NS, not significant.