Pymaceuticals

SCC DRUG Treatment analysis report

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SCC Drug Treatment Analysis Report

The analysis is based on the physiological response of mice to the 4 drugs namely ‘Capomulin’, ‘Infubinol’, ‘Ketapril’ and ‘Placebo’ over the course of 45 days. These mice were treated through a variety of drug regimen over the course of that time. The above-mentioned drugs are developed as a potential treatment for Squamous Cell Carcinoma (SCC), a commonly occurring form of skin cancer.

1. Drug ‘Capomulin’ showed the greatest potential in treating SCC. ‘Capomulin’ reduced tumor size in mice. The tumor volume reduced from 45 (mm3) to about 35 (mm3), which is about -19% over the course of 45 days. ‘Infubinol’ and ‘Ketapril’ as well as ‘Placebo’ had a negative impact on the tumor growth with increases in tumor volume from 45 (mm3) to over 65 (mm3) and above, which is about 46% to 57%. The error margins were low for all the drugs.
2. Metastatic spread is lower in mice during treatment with ‘Capomulin’ than with ‘Infubinol’, ‘Ketapril’ or ‘Placebo’. The metastatic spread has a steady low increase with ‘Capomulin’ over the course of the 45 days. The metastatic sites increased rapidly during treatment with ‘Ketapril’ and ‘Placebo’. In comparison, ‘Infubinol’ had a slightly lower increase in the number of metastatic sites, however it is still higher than ‘Capomulin’. Error margins are low for ‘Capomulin’ compared to the other 3 drugs.
3. Survival rate is much better with ‘Capomulin’ than with ‘Infubinol’, ‘Ketapril’ or ‘Placebo’. About 84% mice survived during treatment with ‘Capomulin’ at the end of the 45 days. Mice treated with ‘Infubinol’ had the worst survival rate at 36%. Mice treated with ‘Ketapril’ and ‘Placebo’ had the same survival rate of 44%.

## Conclusion:

‘Capomulin’ stands out as the drug having the most potential for success in treatment of SCC in mice. Tumor volume decreased by -19% while metastatic spread increased from 0.0 to 1.47 and survival rate stood at 84% at the end of 45 days of treatment with ‘Capomulin’. This is much better in comparison with the other 3 drugs namely ‘Infubinol’, ‘Ketapril’ or ‘Placebo’.