

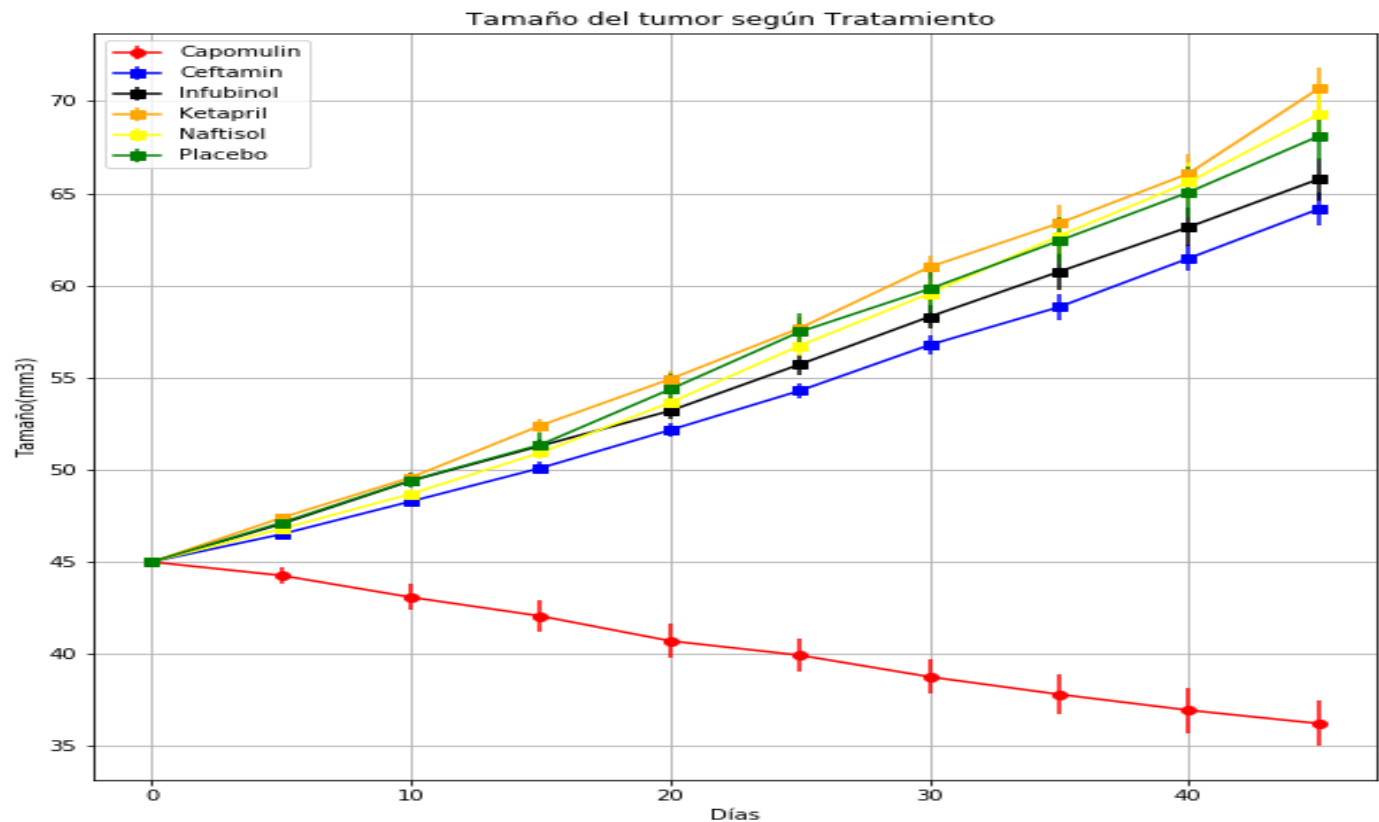
Matplotlib Homework - The Power of Plots

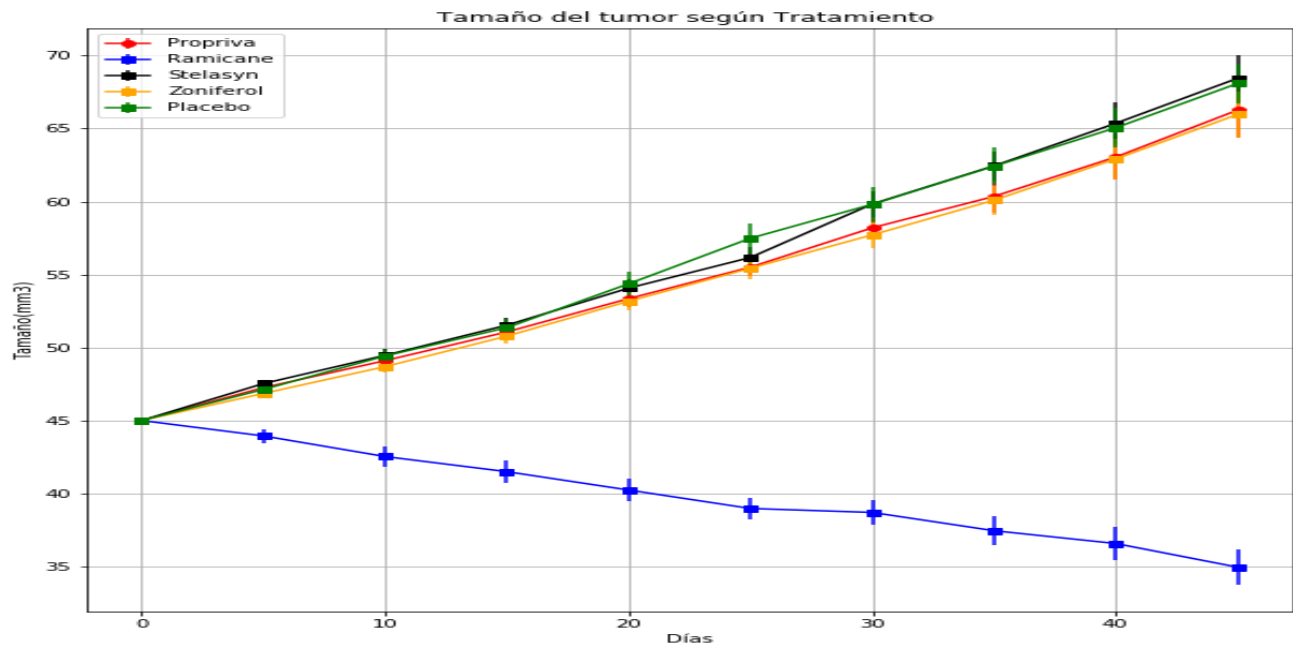
We recibed the basic data from two data base, we merge them and analize by tree specific factor, the volume of the tumor, the spread of Metastasis and from de numbers of suvivers to the diferents drugs procedures.

For the Volumen Tumor these are the Data:

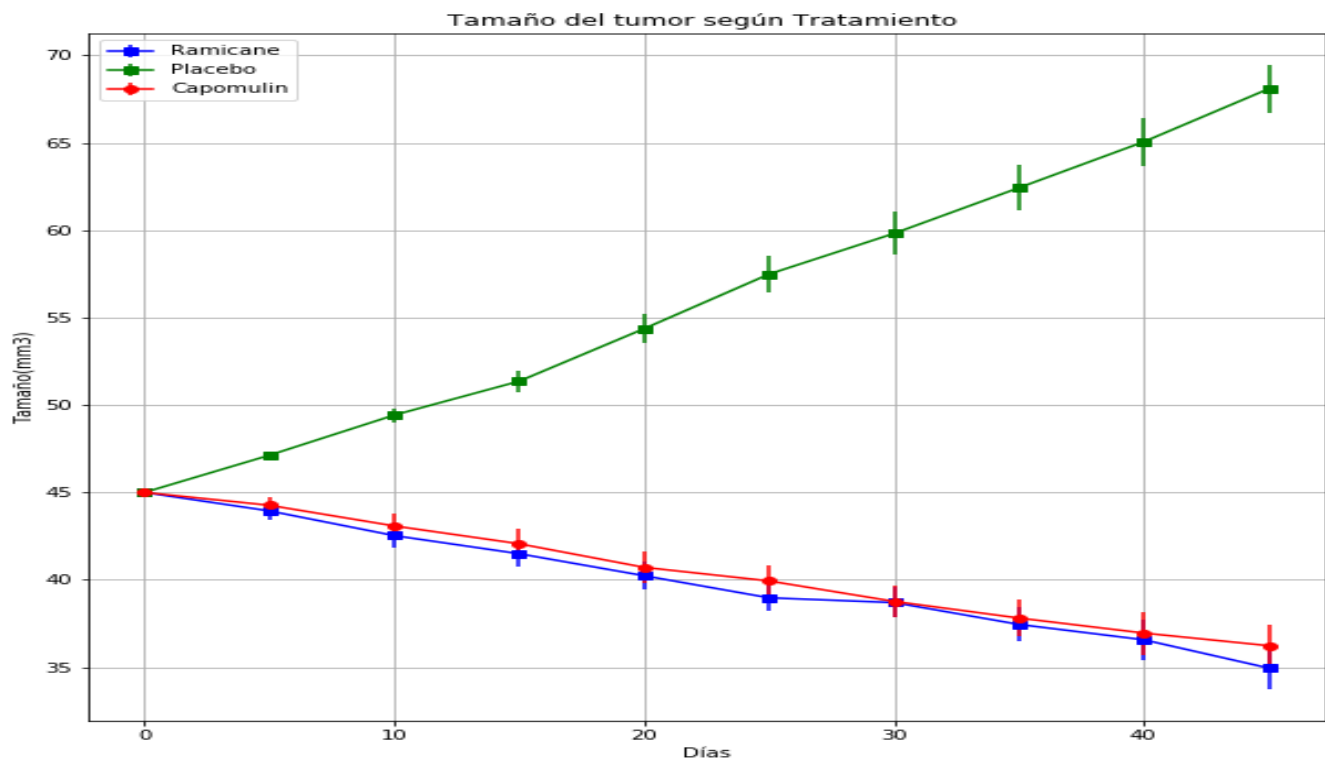
Out[9]:

Drug	Capomulin	Ceftamin	Infubinol	Ketapril	Naftisol	Placebo	Propriva	Ramicane	Stelasyn	Zoniferol
Timepoint										
0	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000
5	44.266086	46.503051	47.062001	47.389175	46.796098	47.125589	47.248967	43.944859	47.527452	46.851818
10	43.084291	48.285125	49.403909	49.582269	48.694210	49.423329	49.101541	42.531957	49.463844	48.689881
15	42.064317	50.094055	51.296397	52.399974	50.933018	51.359742	51.067318	41.495061	51.529409	50.779059
20	40.716325	52.157049	53.197691	54.920935	53.644087	54.364417	53.346737	40.238325	54.067395	53.170334
25	39.939528	54.287674	55.715252	57.678982	56.731968	57.482574	55.504138	38.974300	56.166123	55.432935
30	38.769339	56.769517	58.299397	60.994507	59.559509	59.809063	58.196374	38.703137	59.826738	57.713531
35	37.816839	58.827548	60.742461	63.371686	62.685087	62.420615	60.350199	37.451996	62.440699	60.089372
40	36.958001	61.467895	63.162824	66.068580	65.600754	65.052675	63.045537	36.574081	65.356386	62.916692
45	36.236114	64.132421	65.755562	70.662958	69.265506	68.084082	66.258529	34.955595	68.438310	65.960888





In these two graphs we can see that the Capomulin and the Ramicane procedures are the get the mayor reduce of the volume of the tumor.

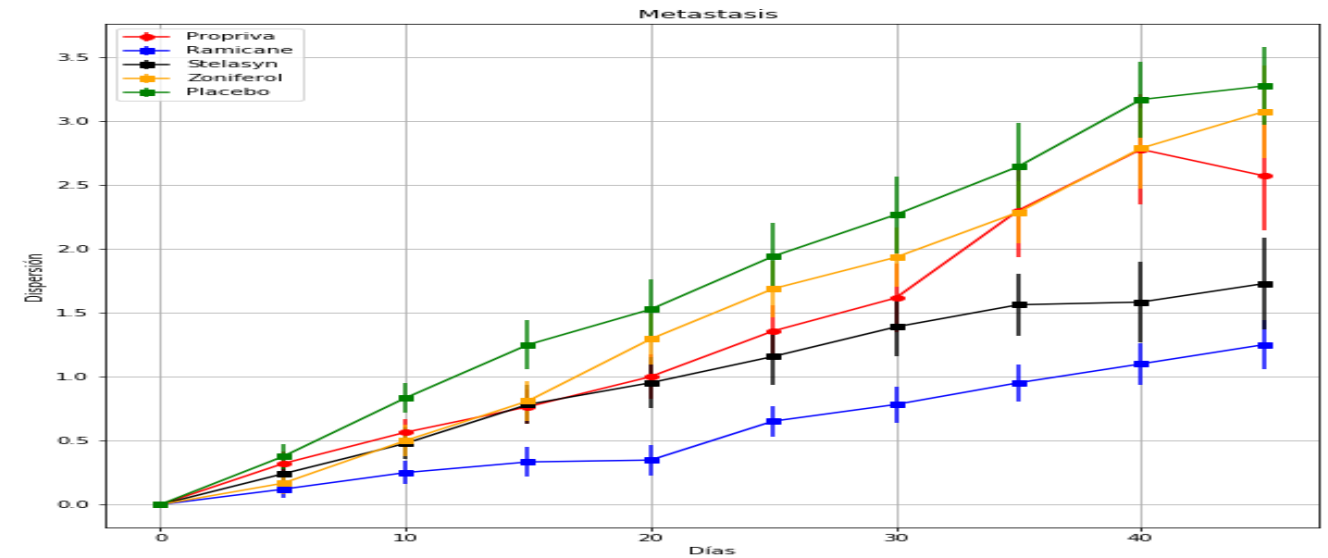
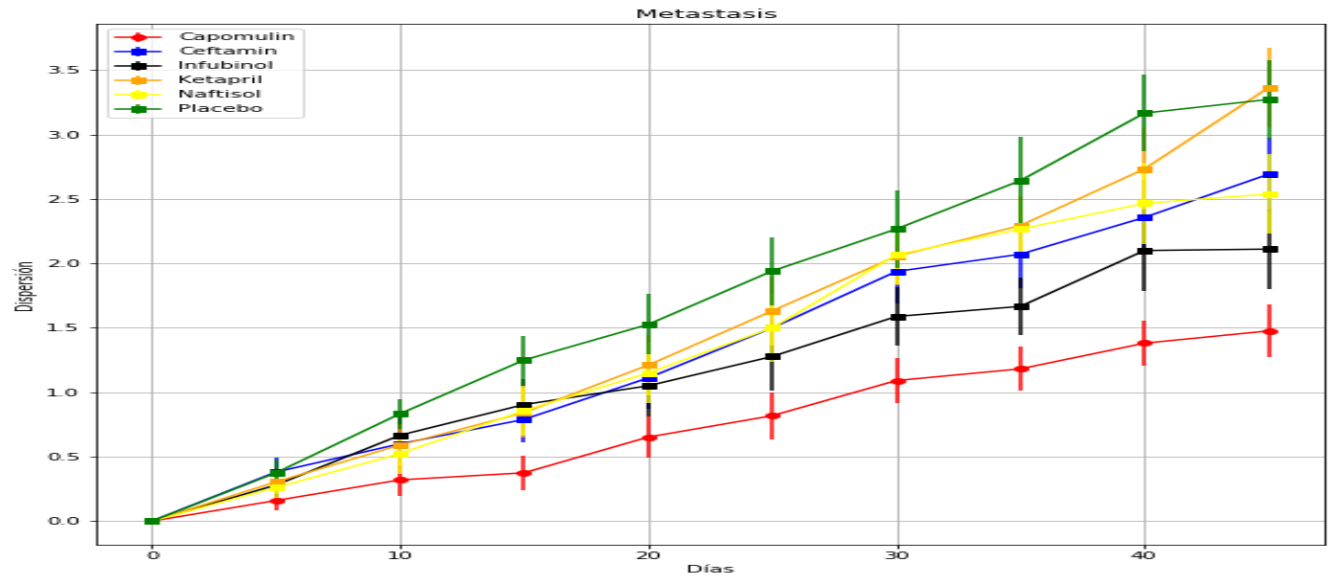


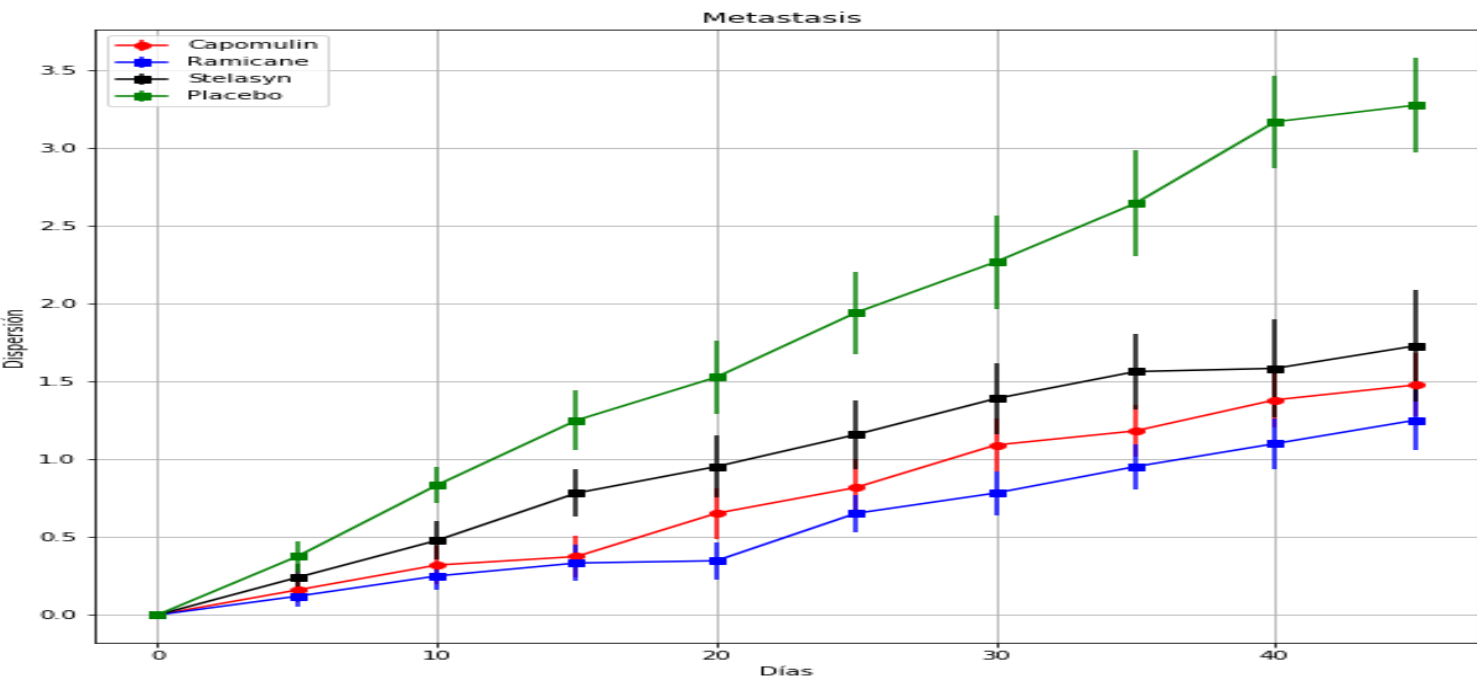
And we can see that Ramicane and Capomulin are very similar in the Volumen tread.

For the Metastasis the data Analisis is...

Out[15]:

Drug	Capomulin	Ceftamin	Infubinol	Ketapril	Naftisol	Placebo	Propriva	Ramicane	Stelasyn	Zoniferol
Timepoint										
0	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
5	0.160000	0.380952	0.280000	0.304348	0.260870	0.375000	0.320000	0.120000	0.240000	0.166667
10	0.320000	0.600000	0.666667	0.590909	0.523810	0.833333	0.565217	0.250000	0.478261	0.500000
15	0.375000	0.789474	0.904762	0.842105	0.857143	1.250000	0.764706	0.333333	0.782609	0.809524
20	0.652174	1.111111	1.050000	1.210526	1.150000	1.526316	1.000000	0.347826	0.952381	1.294118
25	0.818182	1.500000	1.277778	1.631579	1.500000	1.941176	1.357143	0.652174	1.157895	1.687500
30	1.090909	1.937500	1.588235	2.055556	2.066667	2.266667	1.615385	0.782609	1.388889	1.933333
35	1.181818	2.071429	1.666667	2.294118	2.266667	2.642857	2.300000	0.952381	1.562500	2.285714
40	1.380952	2.357143	2.100000	2.733333	2.466667	3.166667	2.777778	1.100000	1.583333	2.785714
45	1.476190	2.692308	2.111111	3.363636	2.538462	3.272727	2.571429	1.250000	1.727273	3.071429





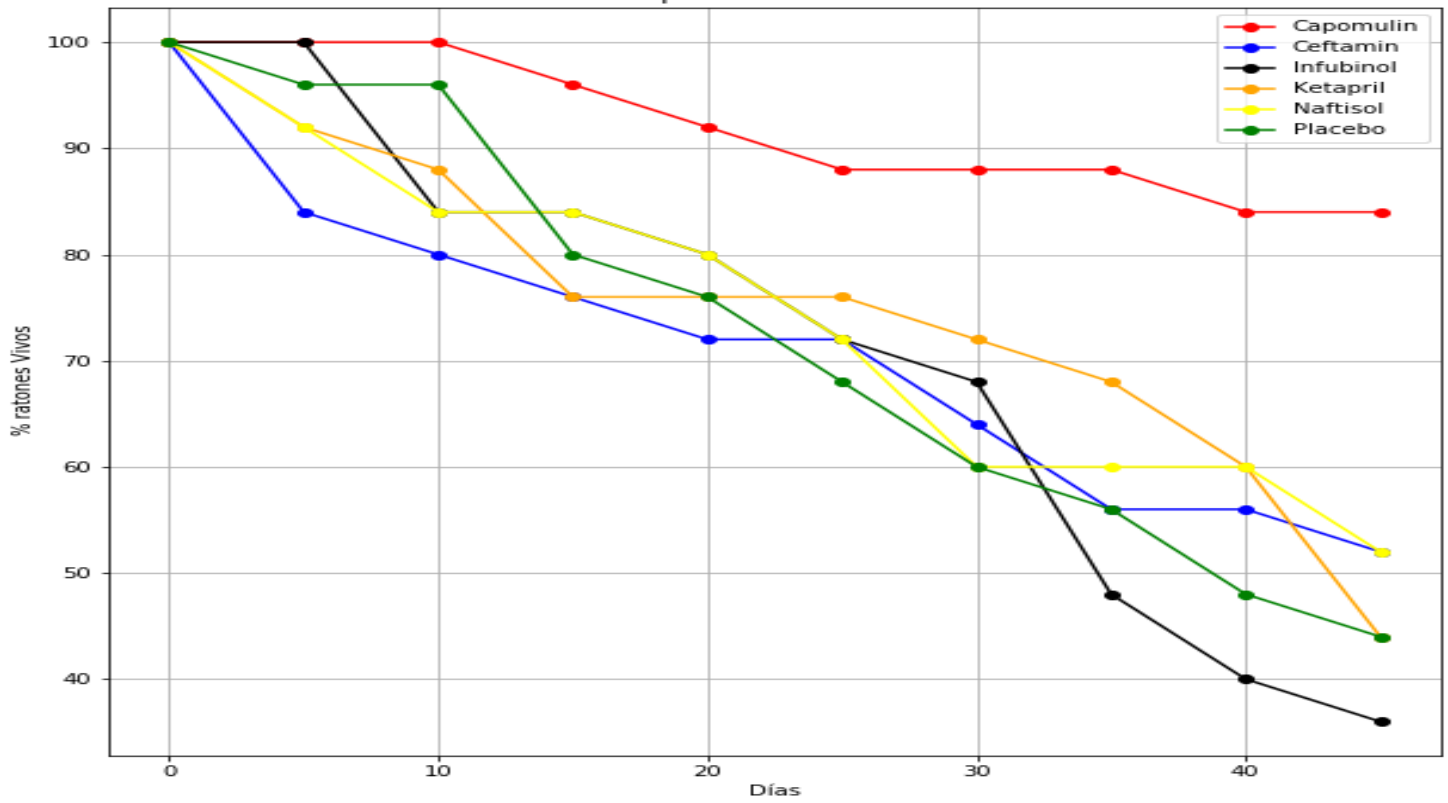
From these graphcis we can say that the Capomilun, Ramicane and Stelasyn are the better treatment against the metastasis, but is also interesting that the Error is greater than in the other variable, Its seems that this Issue is not so easy to control and measure.

By our last variable the table and analisis is...

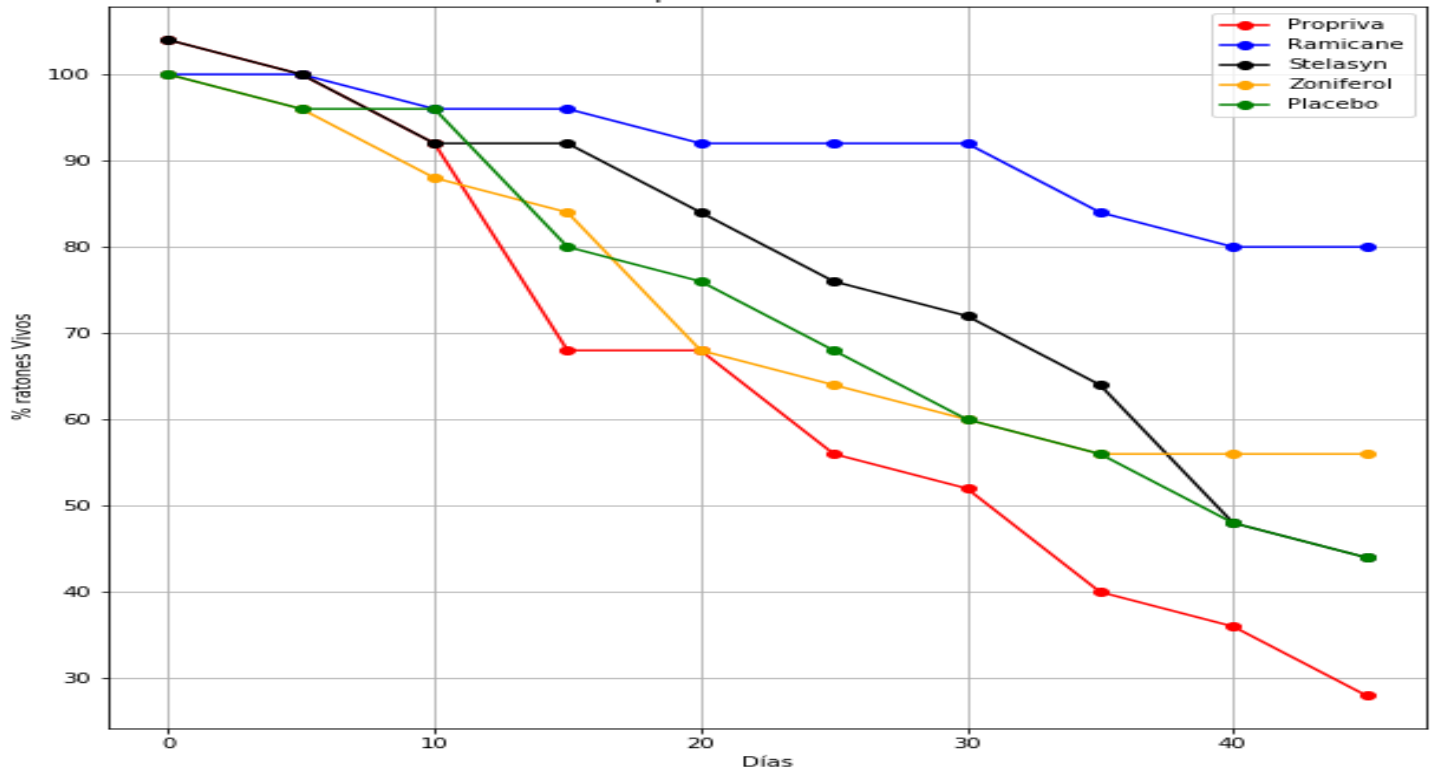
Out[20]:

Drug	Capomulin	Ceftamin	Infubinol	Ketapril	Naftisol	Placebo	Propriva	Ramicane	Stelasyn	Zoniferol
Timepoint										
0	25	25	25	25	25	25	26	25	26	25
5	25	21	25	23	23	24	25	25	25	24
10	25	20	21	22	21	24	23	24	23	22
15	24	19	21	19	21	20	17	24	23	21
20	23	18	20	19	20	19	17	23	21	17
25	22	18	18	19	18	17	14	23	19	16
30	22	16	17	18	15	15	13	23	18	15
35	22	14	12	17	15	14	10	21	16	14
40	21	14	10	15	15	12	9	20	12	14
45	21	13	9	11	13	11	7	20	11	14

Supervivencia x Dias

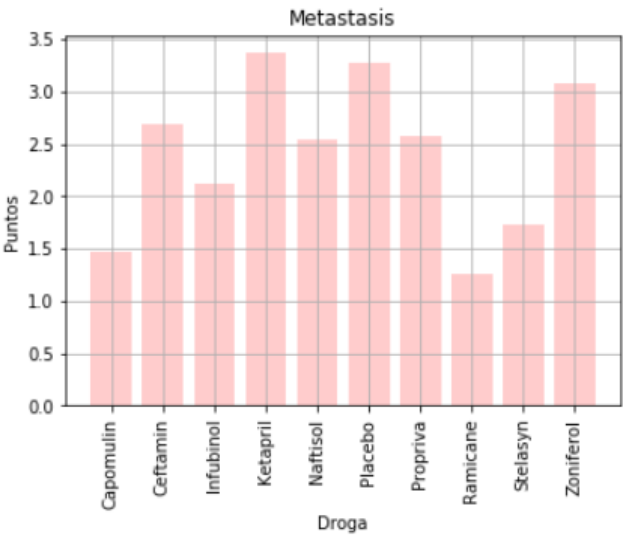
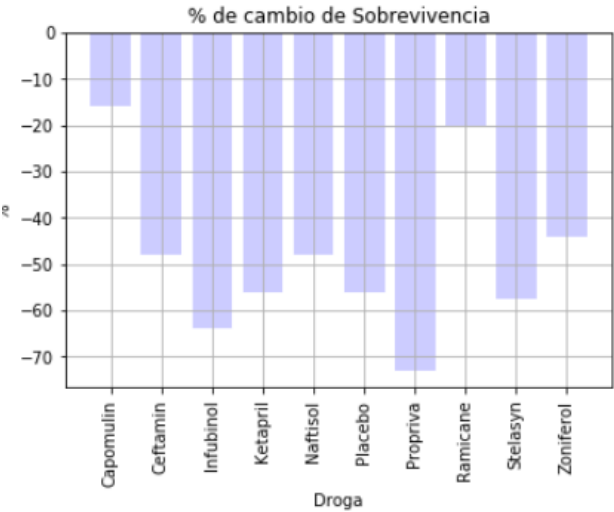
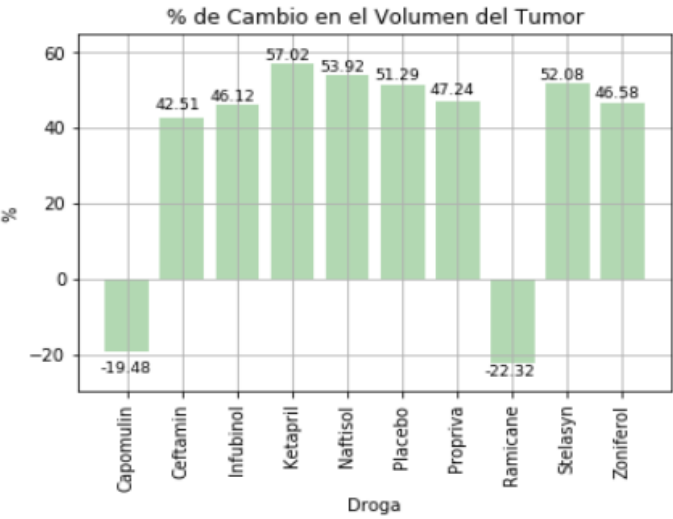


Supervivencia x Dias



For these variable, the best survivor indice are the Capomilun and Ramicane are the most succfull treadment.

In Resumen:



Looking these tree graphics we can say that the better treatment are the **Capomilun** and **Ramicane**.