

A RETROSPECTIVE STUDY OF USAGE OF INJECTABLE METHYLCOBALAMIN IN 1401 CASES OF NEUROSPINAL DISEASES FROM THE YEAR 2015-2017

G. Satya Sravani*¹, Dr. P. Krishna Rajiv² & Dr. K. Vishnu Prasad³

*1st year pharm.D , Aditya Pharmacy college , Surampalem, Andhra Pradesh, India

^{2&3} Consultant neurosurgeon

Keywords: low back ache, occipital neuralgia, lumbar spondylosis, sciatica syndromes.

Abstract

Background: Methylcobalamin is an active molecule of vitamin B12 which can directly participate in homocysteine metabolism. Vitamin B12 may increase availability and effectiveness of noradrenaline and 5-hydroxytryptamine in the descending inhibitory nociceptive system. It is well established today , that methylcobalamin positively influences in the healing of various neurological and spinal diseases and improves pain scores in ultra-high blood levels.

Methodology: This is a retrospective clinical study. The study was done on 1401 patients cases between age group ranging from 16 to 70 and above 70 years treated on out-patient basis with cervicobrachial neuralgia, myofascial syndromes, lumbar spondylosis and sciatica syndromes. Some patients are excluded due to insufficient data. The data collected and validated by VAS Scale, with one month follow up are analysed.

Results: Among the 1401 patients, the majority study patients are females. 90-95% cases have grossly improved in their pain scores based on VAS Scale and also showed improvement in the physical wellbeing. It was also observed that intravenously Injectable methylcobalamin can also be safely given.

Conclusion: It was concluded and recommended that injectable methylcobalamin can be safely used in the Neurospinal diseases with excellent clinical result especially in the pain scores

Introduction

Methylcobalamin is an active molecule of vitamin B12 which can directly participate in homocysteine metabolism. It acts as a methyl donor and participates in the synthesis of S-adenosylmethionine, a nutrient that has powerful mood elevating properties. Vitamin B12 may increase availability and effectiveness of noradrenaline and 5-hydroxytryptamine in the descending inhibitory nociceptive system. Methylcobalamin that is ingested is not used directly as a cofactor, but is first converted by MMACHC into cob(II)alamin. Cob(II)alamin is then later converted into the other 2 forms, adenosylcobalamin and methylcobalamin for use as cofactors. That is, methylcobalamin is first dealkylated and then regenerated. Methylcobalamin is produced by some bacteria. It plays an important role in the environment. In the environment, it is responsible for the biomethylation of certain heavy metals. Methylcobalamin can be produced in the laboratory by reducing cyanocobalamin with sodium borohydride in alkaline solution, followed by the addition of methyl iodide. Normal values are 200 to 900 pico grams per milliliter (pg/mL). High doses of methylcobalamin are needed to regenerate neurons as well as the myelin sheath that protects nerve axons and peripheral nerves. It is well established today , that methylcobalamin positively influences in the healing of various neurological and spinal diseases and improves pain scores in ultra-high blood levels. It is supposed that the MeCbl is becoming a decent choice for the therapy to the chronic low back pain. The treatment

with high dose B12 injections is not only completely safe but fortunately also very effective. With the right treatment patients can recover completely. Starting straight away with treatment is essential, as is the continuing treatment in order to give the body enough B12 to fully recover. Therefore it is essential that patients are no longer exposed to the real danger of irreversible symptoms because of the imaginary fear of overdosing.

Objectives

To review the clinical efficacy and safety of mecobalamin in the treatment of cervicobrachial neuralgia, myofascial syndromes, lumbar spondylosis and sciatica syndromes.

Methodology

This is a retrospective clinical study. The study was done on 1401 patients cases between age group ranging from 16 70 and above 70 years treated on out-patient basis with cervicobrachial neuralgia, myofascial syndromes, lumbar spondylosis and sciatica syndromes from June 2015- May 2017. Some patients are excluded due to insufficient data. The treatment includes 1500mcg once in 2 days. The data collected and validated by VAS Scale. Followed up for 2 years to 1 month and analysed.

S.NO	AGE	GENDER
1	48	MALE
2	34	MALE
3	44	MALE
4	32	FEMALE
5	33	FEMALE
6	47	FEMALE
7	32	FEMALE
8	30	FEMALE
9	48	FEMALE
10	24	MALE
11	55	FEMALE
12	36	MALE
13	45	FEMALE
14	48	MALE
15	36	FEMALE
16	47	MALE
17	41	MALE
18	42	MALE
19	28	MALE
20	39	MALE
21	60	FEMALE
22	36	FEMALE
23	52	FEMALE
24	30	FEMALE
25	35	MALE
26	34	MALE
27	40	FEMALE
28	95	MALE
29	45	FEMALE
30	64	MALE
31	62	FEMALE
32	75	MALE
33	40	MALE
34	38	FEMALE
35	32	MALE
36	65	MALE
37	35	MALE
38	34	FEMALE
39	34	FEMALE

21	80	FEMALE
22	36	FEMALE
23	52	FEMALE
24	30	FEMALE
25	35	MALE
26	34	MALE
27	40	FEMALE
28	95	MALE
29	45	FEMALE
30	64	MALE
31	62	FEMALE
32	75	MALE
33	40	MALE
34	38	FEMALE
35	32	MALE
36	65	MALE
37	35	MALE
38	34	FEMALE
39	34	MALE
40	34	FEMALE
41	87	MALE
42	50	FEMALE
43	31	MALE
44	62	FEMALE
45	68	FEMALE
46	67	FEMALE
47	62	FEMALE
48	48	FEMALE
49	40	MALE
50	62	FEMALE
51	37	FEMALE
52	32	FEMALE
53	62	MALE
54	31	MALE
55	37	MALE
56	52	FEMALE
57	60	FEMALE
58	66	MALE

131	52	FEMALE	168	52	FEMALE
132	48	FEMALE	169	40	FEMALE
133	45	MALE	170	66	MALE
134	31	MALE	171	34	FEMALE
135	33	FEMALE	172	32	FEMALE
136	34	FEMALE	173	48	MALE
137	34	MALE	174	42	FEMALE
138	45	FEMALE	175	42	FEMALE
139	32	FEMALE	176	32	FEMALE
140	42	FEMALE	177	43	MALE
141	58	FEMALE	178	34	MALE
142	46	FEMALE	179	36	FEMALE
143	42	FEMALE	180	42	FEMALE
144	58	MALE	181	79	FEMALE
145	54	FEMALE	182	42	FEMALE
146	59	MALE	183	29	FEMALE
147	47	FEMALE	184	39	FEMALE
148	50	FEMALE	185	38	FEMALE
149	50	MALE	186	44	MALE
150	38	FEMALE	187	32	FEMALE
151	34	MALE	188	33	FEMALE
152	38	FEMALE	189	38	MALE
153	47	FEMALE	190	42	FEMALE
154	42	MALE	191	49	MALE
155	32	MALE	192	42	FEMALE
156	79	MALE	193	38	FEMALE
157	42	MALE	194	36	FEMALE
158	32	MALE	195	30	FEMALE
159	34	MALE	196	32	FEMALE
160	35	FEMALE	197	43	FEMALE
161	52	FEMALE	198	42	FEMALE
162	42	MALE	199	30	FEMALE
163	42	FEMALE	200	33	MALE
164	32	FEMALE	201	36	MALE
165	40	MALE	202	30	FEMALE
166	45	MALE	203	48	MALE
167	62	FEMALE	204	40	MALE
168	52	FEMALE	205	45	MALE



International Journal of Medical Research and Pharmaceutical Sciences

Volume 4 (Issue 10): October 2017

ISSN: 2394-9414

DOI- 10.5281/zenodo.1003164

Impact Factor- 3.109

206	65	MALE	244	36	FEMALE
207	32	FEMALE	245	38	FEMALE
208	44	FEMALE	246	34	MALE
209	45	FEMALE	247	47	FEMALE
210	70	FEMALE	248	32	MALE
211	58	MALE	249	60	FEMALE
212	33	FEMALE	250	35	MALE
213	54	MALE	251	38	MALE
214	32	FEMALE	252	56	MALE
215	38	FEMALE	253	50	FEMALE
216	42	FEMALE	254	67	MALE
217	32	FEMALE	255	36	FEMALE
218	22	FEMALE	256	65	MALE
219	28	FEMALE	257	32	MALE
220	46	FEMALE	258	47	FEMALE
221	34	FEMALE	259	58	MALE
222	30	FEMALE	260	33	MALE
223	60	FEMALE	261	40	FEMALE
224	67	MALE	262	44	MALE
225	48	FEMALE	263	28	MALE
226	30	FEMALE	264	48	FEMALE
227	42	FEMALE	265	46	FEMALE
228	56	FEMALE	266	46	FEMALE
229	60	FEMALE	267	42	FEMALE
230	50	FEMALE	268	42	FEMALE
231	31	MALE	269	38	FEMALE
232	62	MALE	270	32	MALE
233	22	MALE	271	60	MALE
234	60	FEMALE	272	41	FEMALE
235	46	MALE	273	69	FEMALE
236	32	MALE	274	54	MALE
237	52	MALE	275	39	MALE
238	40	MALE	276	42	MALE
239	43	FEMALE	277	49	FEMALE
240	60	FEMALE	278	32	MALE
241	30	FEMALE	279	40	FEMALE
242	22	FEMALE	280	42	MALE
243	57	FEMALE	281	40	FEMALE

International Journal of Medical Research and Pharmaceutical Sciences

Volume 4 (Issue 10): October 2017

ISSN: 2394-9414

DOI- 10.5281/zenodo.1003164

Impact Factor- 3.109

281	40	FEMALE	319	70	FEMALE
282	36	FEMALE	320	78	FEMALE
283	32	FEMALE	321	48	FEMALE
284	29	MALE	322	33	MALE
285	63	FEMALE	323	42	MALE
286	40	MALE	324	40	FEMALE
287	42	MALE	325	54	FEMALE
288	54	FEMALE	326	50	FEMALE
289	62	FEMALE	327	65	FEMALE
290	42	FEMALE	328	50	FEMALE
291	49	MALE	329	30	FEMALE
292	60	FEMALE	330		MALE
293	62	MALE	331	57	MALE
294	22	FEMALE	332	59	FEMALE
295	52	FEMALE	333	40	FEMALE
296	39	MALE	334	32	FEMALE
297	69	FEMALE	335	50	MALE
298	64	FEMALE	336	42	FEMALE
299	44	MALE	337	60	MALE
300	28	FEMALE	338	37	MALE
301	39	MALE	339	48	MALE
302	37	FEMALE	340	42	MALE
303	34	MALE	341	30	FEMALE
304	45	FEMALE	342	40	FEMALE
305	29	FEMALE	343	39	MALE
306	44	FEMALE	344	64	FEMALE
307	52	FEMALE	345	49	FEMALE
308	28	MALE	346	43	FEMALE
309	62	FEMALE	347	54	MALE
310	22	MALE	348	43	MALE
311	67	MALE	349	50	FEMALE
312	42	MALE	350	31	MALE
313	64	MALE	351	40	MALE
314	34	FEMALE	352	45	MALE
315	24	MALE	353	47	FEMALE
316	27	MALE	354	33	FEMALE
317	52	MALE	355	38	MALE
318	60	FEMALE	356	46	FEMALE

357	63	FEMALE
358	49	FEMALE
359	42	FEMALE
360	50	FEMALE
361	57	FEMALE
362	28	FEMALE
363	66	MALE
364	66	MALE
365	53	FEMALE
366	38	FEMALE
367	32	FEMALE
368	69	MALE
369	43	MALE
370	32	FEMALE
371	38	FEMALE
372	32	MALE
373	65	MALE
374	67	MALE
375	24	MALE
376	51	FEMALE
377	50	FEMALE
378	48	MALE
379	60	MALE
380	48	MALE
381	60	FEMALE
382	63	FEMALE
383	48	MALE
384	40	FEMALE
385	40	FEMALE
386	45	FEMALE
387	57	MALE
388	65	FEMALE
389	53	MALE
390	50	FEMALE
391	57	MALE
392	68	FEMALE
393	42	MALE
394	39	FEMALE

394	39	FEMALE
395	29	FEMALE
396	61	FEMALE
397	43	FEMALE
398	50	FEMALE
399	43	FEMALE
400	45	FEMALE
401	65	FEMALE

MALE	169
FEMALES	232

BELOW 20	2
21-30	45
31-40	106
41-50	117
51-60	74
61-70	51
71-80	5
ABOVE 80	1

LUMBAR SPONDYLOSIS		
S.NO	AGE	GENDER
1	38	MALE
2	42	FEMALE
3	34	FEMALE
4	32	MALE
5	53	MALE
6	65	MALE
7	40	MALE
8		MALE
9	53	FEMALE
10	38	FEMALE
11	42	MALE
12	63	MALE
13	36	FEMALE
14	62	MALE
15	62	MALE
16	34	FEMALE
17	34	MALE
18	33	FEMALE
19	39	MALE
20	42	FEMALE
21	57	FEMALE
22	63	MALE
23	30	FEMALE
24	34	MALE
25	30	FEMALE
26	37	MALE
27	32	FEMALE
28	40	FEMALE
29	36	MALE
30	38	MALE
31	30	FEMALE
32	49	MALE
33	34	FEMALE
34	31	FEMALE
35	47	MALE
36	32	MALE
37	34	MALE
38	50	FEMALE
39	65	FEMALE
40	36	FEMALE
41	38	FEMALE
42	62	FEMALE
43	35	MALE
44	48	FEMALE
45	32	MALE
46	49	FEMALE
47	61	MALE
48	46	MALE
49	36	MALE
50	36	FEMALE
51		MALE
52	48	FEMALE
53	50	MALE
54	38	MALE
55	81	MALE
56		MALE
57	61	MALE
58	38	MALE
59	35	MALE
60	40	FEMALE
61	38	MALE
62	48	FEMALE
63	48	FEMALE
64	47	FEMALE
65	34	MALE
66	66	MALE
67	33	FEMALE
68	48	FEMALE
69	38	MALE
70	33	MALE
71	45	MALE
72	64	MALE
73	34	MALE

International Journal of Medical Research and Pharmaceutical Sciences

Volume 4 (Issue 10): October 2017

ISSN: 2394-9414

DOI- 10.5281/zenodo.1003164

Impact Factor- 3.109

74	35	MALE	111		MALE
75	62	MALE	112	27	FEMALE
76	28	FEMALE	113	35	FEMALE
77	38	FEMALE	114	38	MALE
78	45	MALE	115	78	MALE
79	28	MALE	116	45	FEMALE
80	61	MALE	117	95	FEMALE
81	38	FEMALE	118	32	FEMALE
82	46	FEMALE	119		FEMALE
83	62	MALE	120	60	FEMALE
84	45	MALE	121	58	MALE
85	35	FEMALE	122	52	FEMALE
86	33	MALE	123	38	MALE
87	35	MALE	124	55	MALE
88	48	MALE	125	43	MALE
89	54	MALE	126	47	MALE
90	40	MALE	127	28	FEMALE
91	30	FEMALE	128	36	FEMALE
92	38	MALE	129	28	MALE
93	38	MALE	130	78	MALE
94	45	MALE	131	27	FEMALE
95	44	MALE	132	32	MALE
96	55	FEMALE	133	27	FEMALE
97	46	MALE	134	38	FEMALE
98	38	MALE	135	50	MALE
99	33	MALE	136	49	MALE
100	65	MALE	137	36	FEMALE
101	49	MALE	138	30	FEMALE
102	40	FEMALE	139	32	MALE
103	45	FEMALE	140	53	FEMALE
104	37	MALE	141	28	MALE
105	64	FEMALE	142	28	MALE
106	60	FEMALE	143	27	MALE
107	78	FEMALE	144	35	MALE
108	38	FEMALE	145		MALE
109	44	FEMALE	146	42	FEMALE
110	28	FEMALE	147	32	MALE

149	34	MALE	187	52	MALE
150		FEMALE	188	38	FEMALE
151	38	MALE	189	27	FEMALE
152	41	MALE	190	30	FEMALE
153	58	MALE	191	40	FEMALE
154	34	FEMALE	192	45	FEMALE
155	28	MALE	193	37	MALE
156	38	FEMALE	194	64	FEMALE
157	32	MALE	195	60	FEMALE
158	36	MALE	196	33	MALE
159	47	MALE	197	55	FEMALE
160	45	FEMALE	198	46	MALE
161	29	FEMALE	199	26	MALE
162	37	MALE	200	42	FEMALE
163	22	FEMALE	201	24	FEMALE
164	62	MALE	202	85	FEMALE
165	38	FEMALE	203	53	MALE
166	40	MALE	204	52	MALE
167	35	FEMALE	205	32	MALE
168	29	FEMALE	206	53	FEMALE
169	25	MALE	207	20	FEMALE
170	86	FEMALE	208	38	FEMALE
171	65	FEMALE	209	69	FEMALE
172	52	FEMALE	210	37	MALE
173	35	MALE	211	63	MALE
174	40	MALE	212	32	FEMALE
175	32	FEMALE	213	42	MALE
176		FEMALE	214	30	FEMALE
177	45	FEMALE	215	43	FEMALE
178	32	FEMALE	216		MALE
179	22	FEMALE	217	20	FEMALE
180	29	MALE	218	28	MALE
181	45	MALE	219	42	MALE
182	52	MALE	220	50	MALE
183	38	MALE	221	42	MALE
184	43	MALE	222	48	MALE
185	70	FEMALE	223	39	FEMALE
186	24	MALE	224	30	MALE

International Journal of Medical Research and Pharmaceutical Sciences

Volume 4 (Issue 10): October 2017

ISSN: 2394-9414

DOI- 10.5281/zenodo.1003164

Impact Factor- 3.109

225	46	MALE	262	38	FEMALE
226	31	MALE	263	72	FEMALE
227	53	FEMALE	264		MALE
228	42	FEMALE	265	53	FEMALE
229		MALE	266	34	MALE
230	50	FEMALE	267	56	FEMALE
231	30	MALE	268	57	FEMALE
232	68	MALE	269	48	MALE
233	38	MALE	270	48	FEMALE
234	39	MALE	271	31	FEMALE
235	48	MALE	272	29	FEMALE
236	52	MALE	273	40	FEMALE
237		MALE	274	32	MALE
238	62	MALE	275	31	FEMALE
239	67	FEMALE	276	42	MALE
240	37	MALE	277	70	MALE
241	32	FEMALE	278	38	FEMALE
242	34	MALE	279	32	FEMALE
243	46	MALE	280	30	MALE
244	33	FEMALE	281	62	MALE
245	61	MALE	282	72	MALE
246	39	MALE	283	52	MALE
247	38	MALE	284	32	FEMALE
248	63	MALE	285	48	FEMALE
249	36	FEMALE	286	32	FEMALE
250	35	FEMALE	287	43	MALE
251	26	FEMALE	288	32	MALE
252	62	MALE	289	36	MALE
253	48	MALE	290	60	FEMALE
254	57	MALE	291	40	MALE
255	41	FEMALE	292	41	FEMALE
256	34	FEMALE	293	32	MALE
257	32	MALE	294	58	FEMALE
258	63	MALE	295	38	MALE
259	30	MALE	296	54	FEMALE
260	37	MALE	297	32	MALE
261	42	FEMALE	298	66	FEMALE
262	36	FEMALE	299	46	FEMALE

International Journal of Medical Research and Pharmaceutical Sciences

Volume 4 (Issue 10): October 2017

ISSN: 2394-9414

DOI- 10.5281/zenodo.1003164

Impact Factor- 3.109

330	3	MALE
331	3	MALE
332	4	FEMALE
333	3	FEMALE
334	7	MALE
335	3	FEMALE
336	2	FEMALE
337	5	FEMALE
338	4	MALE
339	6	FEMALE
340	2	FEMALE
341	6	MALE
342	3	MALE
343	2	FEMALE
344	3	MALE
345	3	FEMALE
346	3	MALE
347	3	FEMALE
348	2	FEMALE
349	3	MALE
350	3	FEMALE
351	2	FEMALE
352	4	FEMALE
353	2	FEMALE
354	4	FEMALE
355	2	MALE
356	2	FEMALE
357	3	MALE
358	2	MALE
359	2	MALE
360	3	FEMALE
361	2	MALE
362	2	MALE
363	6	MALE
364	4	MALE
365	2	MALE
366	2	FEMALE
367	2	MALE
368	3	MALE
369	2	MALE
370	2	MALE
371	6	MALE
372	2	MALE
373	6	MALE
374	4	FEMALE
375	2	MALE

376	32	MALE	414	42	FEMALE
377	38	MALE	415	32	FEMALE
378	59	FEMALE	416	37	MALE
379	53	FEMALE	417	32	MALE
380	46	MALE	418	43	MALE
381	40	MALE	419	48	FEMALE
382	58	MALE	420	41	MALE
383	56	MALE	421	36	FEMALE
384	32	FEMALE	422	52	MALE
385	50	FEMALE	423	42	MALE
386	46	FEMALE	424	71	FEMALE
387	32	FEMALE	425	36	FEMALE
388	52	FEMALE	426	43	FEMALE
389	37	FEMALE	427	32	FEMALE
390	39	FEMALE	428	36	FEMALE
391	58	FEMALE	429	35	FEMALE
392	58	MALE	430	32	MALE
393	32	FEMALE	431	36	FEMALE
394	42	FEMALE	432	37	FEMALE
395	36	FEMALE	433	42	MALE
396	42	FEMALE	434	46	FEMALE
397	40	FEMALE	435	63	FEMALE
398	37	MALE	436	35	FEMALE
399	50	FEMALE	437	36	MALE
400	46	FEMALE	438	49	MALE
401	32	MALE	439	38	MALE
402	46	FEMALE	440	45	MALE
403	35	FEMALE	441	35	MALE
404	47	FEMALE	442	36	FEMALE
405	40	MALE	443	30	MALE
406	38	FEMALE	444	32	FEMALE
407	82	FEMALE	445	40	MALE
408	42	MALE	446	65	FEMALE
409	32	FEMALE	447	34	MALE
410	45	MALE	448	63	MALE
411	34	MALE	449	71	FEMALE
412	40	FEMALE	450	42	MALE
413	46	MALE	451	48	FEMALE

452	62	MALE	490	38	FEMALE
453	32	MALE	491	38	MALE
454	25	MALE	492	42	MALE
455	28	MALE	493	54	MALE
456	34	MALE	494	38	FEMALE
457	31	FEMALE	495	32	FEMALE
458	32	MALE	496	52	MALE
459	50	MALE	497	56	MALE
460	48	FEMALE	498	37	MALE
461	28	MALE	499	42	MALE
462	66	MALE	500	53	MALE
463	47	MALE	501	32	MALE
464	32	MALE	502	37	FEMALE
465	48	MALE	503	40	FEMALE
466	52	FEMALE	504	70	FEMALE
467	32	MALE	505	45	FEMALE
468	61	MALE	506	32	MALE
469	62	MALE	507	38	MALE
470	43	MALE	508	34	FEMALE
471	42	MALE	509	43	MALE
472	33	MALE	510	34	MALE
473	66	FEMALE	511	28	MALE
474	38	FEMALE	512	44	FEMALE
475	60	FEMALE	513	58	MALE
476	58	FEMALE	514	54	FEMALE
477	48	MALE	515	63	FEMALE
478	48	MALE	516	42	MALE
479	24	MALE	517	39	MALE
480	32	FEMALE	518	57	MALE
481	45	FEMALE	519	57	MALE
482	32	FEMALE	520		FEMALE
483	38	FEMALE	521	42	FEMALE
484	42	MALE	522	40	MALE
485	50	MALE	523	37	FEMALE
486	32	MALE	524	34	MALE
487	34	MALE	525	47	MALE
488	37	MALE	526	62	MALE
489	54	FEMALE	527	46	FEMALE

528	39	FEMALE	565	38	MALE
529	36	MALE	566	40	FEMALE
530	32	FEMALE	567	38	FEMALE
531	33	MALE	568	45	FEMALE
532	32	FEMALE	569	63	FEMALE
533	50	FEMALE	570	40	MALE
534	49	MALE	571	32	FEMALE
535	30	FEMALE	572	42	FEMALE
536	32	MALE	573	42	FEMALE
537	32	FEMALE	574	61	FEMALE
538	42	FEMALE	575	50	MALE
539	36	FEMALE	576	32	FEMALE
540	30	MALE	577	41	FEMALE
541	39	FEMALE	578	39	MALE
542	36	MALE	579	38	MALE
543	34	FEMALE	580	33	MALE
544	47	FEMALE	581	36	MALE
545	50	FEMALE	582	38	MALE
546	32	MALE	583	47	MALE
547	49	FEMALE	584	33	MALE
548	42	MALE	585	38	MALE
549	32	MALE	586	32	FEMALE
550	42	MALE	587	38	FEMALE
551	36	MALE	588	40	FEMALE
552	61	FEMALE	589	38	FEMALE
553	39	MALE	590	43	MALE
554	48	MALE	591	38	MALE
555	37	FEMALE	592	33	FEMALE
556	30	FEMALE	593	45	MALE
557	37	FEMALE	594	37	FEMALE
558	38	FEMALE	595	36	FEMALE
559	40	MALE	596	47	MALE
560	42	MALE	597	34	MALE
561	37	FEMALE	598	38	FEMALE
562	32	FEMALE	599	45	MALE
563	43	MALE	600	46	FEMALE
564	38	FEMALE	601	45	FEMALE
565	32	MALE	602	66	MALE

603	46	FEMALE
604	50	FEMALE
605	48	MALE
606	38	FEMALE
607	38	FEMALE
608	32	FEMALE
609	32	FEMALE
610	33	FEMALE
611	40	MALE
612	56	MALE
613	32	FEMALE
614	40	FEMALE
615	32	FEMALE
616	49	MALE
617	66	MALE
618	68	FEMALE
619	36	FEMALE
620	44	FEMALE
621	62	MALE
622	34	FEMALE
623	47	MALE
624	40	FEMALE
625	40	MALE
626	32	FEMALE
627	33	MALE
628	49	MALE
629	43	MALE
630	38	FEMALE
631	48	FEMALE
632	42	MALE
633	65	FEMALE
634	62	FEMALE
635	38	FEMALE
636	38	FEMALE
637	42	FEMALE
638	32	MALE
639	40	FEMALE
640	35	MALE

641	43	FEMALE
642	50	FEMALE
643	32	FEMALE
644	57	FEMALE
645	84	MALE
646	44	MALE
647	70	MALE
648	32	MALE
649	42	FEMALE
650	58	FEMALE
651	48	MALE
652	35	FEMALE
653	45	MALE
654	65	MALE
655	32	FEMALE
656	70	MALE
657	61	FEMALE
658	39	MALE
659	35	MALE
660	42	FEMALE
661	32	FEMALE
662	32	FEMALE
663	42	MALE
664	53	FEMALE
665	38	FEMALE
666	65	FEMALE
667		FEMALE
668	43	MALE
669	78	MALE
670	34	MALE
671	44	MALE
672	38	MALE
673	31	MALE
674	32	MALE
675	38	FEMALE
676	50	FEMALE
677	31	MALE
678	45	MALE

679	38	MALE
680	42	MALE
681	32	MALE
682	62	MALE
683	38	FEMALE
684	48	FEMALE
685	32	MALE
686	48	FEMALE
687	41	MALE
688	38	FEMALE
689	38	FEMALE
690	48	FEMALE
691	38	MALE
692	38	MALE
693	38	FEMALE
694	32	MALE
695	38	MALE
696	38	MALE
697	38	FEMALE
698	38	MALE
699	38	MALE
700	32	MALE
701	41	MALE
702	48	MALE
703	32	MALE
704	38	MALE
705	48	MALE
MALE	381	
FEMALE	328	
BELOW 20	18	
21-30	124	
31-40	282	
41-50	148	
51-60	173	
61-70	64	

CERVICOBRANCHIAL NEURALGIA		
S.NO	AGE	GENDER
1	42	FEMALE
2	42	FEMALE
3	47	FEMALE
4	42	FEMALE
5	49	MALE
6	42	FEMALE
7	42	FEMALE
8	42	FEMALE
9	47	MALE
10	48	MALE
11	58	FEMALE
12	58	FEMALE
13	41	MALE
14	31	MALE
15	36	FEMALE
16	48	MALE
17	32	MALE
18	42	FEMALE
19	42	MALE
20	47	FEMALE
21	42	MALE
22	42	MALE
23	46	FEMALE
24	38	FEMALE
25	47	FEMALE
26	38	MALE
27	42	FEMALE
28	42	FEMALE
29	35	FEMALE
30	48	FEMALE
31	41	FEMALE
32		MALE
33		FEMALE
34		MALE
35	38	FEMALE
36	38	MALE

37	62	FEMALE	75	50	FEMALE
38	39	MALE	76	41	MALE
39	38	FEMALE	77	38	MALE
40	42	MALE	78	31	MALE
41	31	MALE	79	32	FEMALE
42	60	FEMALE	80	68	FEMALE
43	36	MALE	81	39	MALE
44	32	FEMALE	82	38	MALE
45	58	MALE	83	36	FEMALE
46	35	FEMALE	84	37	FEMALE
47	33	FEMALE	85	48	FEMALE
48	34	FEMALE	86	39	FEMALE
49	60	FEMALE	87	36	MALE
50	62	MALE	88	38	MALE
51	32	MALE	89	38	FEMALE
52	38	MALE	90	43	MALE
53	32	MALE	91	40	MALE
54	44	MALE	92	31	FEMALE
55	49	FEMALE	93	35	FEMALE
56	31	MALE	94	38	MALE
57	32	MALE	95	34	FEMALE
58	62	FEMALE	96	42	FEMALE
59	65	MALE	97	39	MALE
60	42	FEMALE	98	36	FEMALE
61	46	FEMALE	99	38	MALE
62	62	MALE	100	39	FEMALE
63	47	FEMALE	101	48	FEMALE
64	65	MALE	102	41	FEMALE
65	58	MALE	103	44	FEMALE
66	39	MALE	104	42	FEMALE
67	54	FEMALE	105	38	FEMALE
68	43	FEMALE	106	48	MALE
69	45	FEMALE	107	35	MALE
70	38	FEMALE	108	39	MALE
71	37	MALE	109	48	MALE
72	47	MALE	110	38	FEMALE
73	50	FEMALE	111	42	MALE
74	39	FEMALE	112	50	FEMALE
112	50	FEMALE	150	61	MALE
113	35	FEMALE	151	45	FEMALE
114	38	FEMALE	152	45	MALE
115	32	FEMALE	153	42	MALE
116	30	FEMALE	154	33	MALE
117	43	MALE	155	62	MALE
118	32	MALE	156	63	MALE
119	63	MALE	157	33	FEMALE
120	32	FEMALE	158	32	FEMALE
121	30	FEMALE	159	39	MALE
122	32	MALE	160	50	FEMALE
123	30	FEMALE	161	37	MALE
124	32	MALE	162	33	MALE
125	48	MALE	163	32	FEMALE
126	39	FEMALE	164	38	FEMALE
127	69	MALE	165	39	FEMALE
128	36	MALE	166	45	FEMALE
129	68	FEMALE	167	38	MALE
130	50	MALE	168	38	FEMALE
131	41	FEMALE	169	39	MALE
132	39	FEMALE	170	41	FEMALE
133	37	FEMALE	171	38	MALE
134	36	FEMALE	172	33	MALE
135	38	MALE	173	42	MALE
136	42	FEMALE	174	37	MALE
137	38	FEMALE	175	32	MALE
138	39	MALE	176	35	FEMALE
139	32	MALE	177	34	FEMALE
140	38	FEMALE	178	40	FEMALE
141	39	FEMALE	179	39	MALE
142	61	MALE	180	48	MALE
143	40	FEMALE	181	34	MALE
144	40	FEMALE	182	36	FEMALE
145	65	MALE	183	40	FEMALE
146	39	FEMALE	184	46	MALE
147	38	FEMALE	185	44	MALE
148	46	FEMALE	186	39	FEMALE
149	38	MALE	187	40	FEMALE

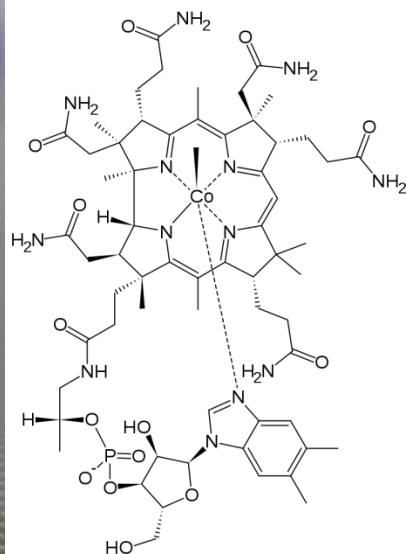
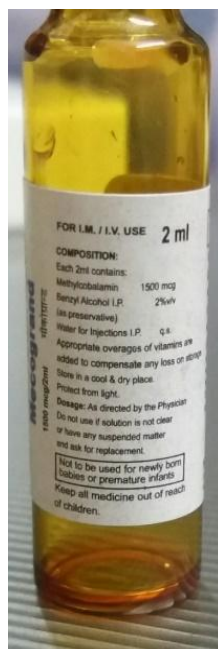
irritation and upper back pain is due to muscle weakness and repetitive motions., Among the 48 Myofascial syndrome patients the majority of patients are males and between the age group 41-50.

Cervicobrachial Neuralgia

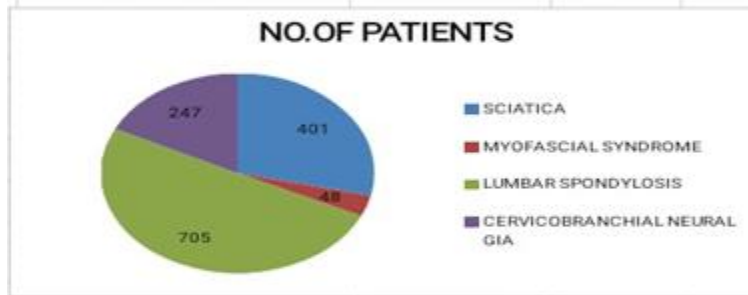
Cervicobrachial Neuralgia is a syndrome associated with the inflammation of the brachial plexus. The term "cervicobrachial" means relating to the neck and arm, while the term "brachial neuralgia" generally refers to the pain associated with brachial plexus injury., Among the 247 patients majority of patients are females and between the age group 31-40.

Lumbar Spondylosis

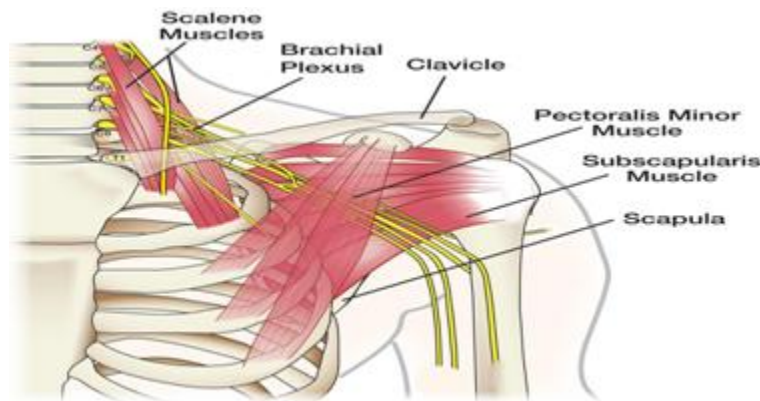
Lumbar Spondylosis is a medical condition in which chronic pain is experienced by the patient in the lower back. Among the 705 patients majority of patients are males and between the age 31-40



DISEASE	NO.OF PATIENTS	MAJORITY	AGE GROUP
SCIATICA	401	FEMALES	41-50
MYOFASCIAL SYNDROME	48	MALES	41-50
LUMBAR SPONDYLOSIS	705	MALES	31-50
CERVICOBANCHIAL NEURALGIA	247	FEMALES	31-50



DISEASE	MAJORITY
SCIATICA	FEMALES
MYOFASCIAL SYNDROME	MALES
LUMBAR SPONDYLOSIS	MALES
CERVICOBANCHIAL NEURALGIA	FEMALES



Results

Out of total 1401 patients, higher proportion (50.3%) were found to have lumbar spondylosis followed by 28.6% patients with sciatica, 17.6% patients with cervicobanchial neuralgia and 3.5% suffering from myofascial syndrome.

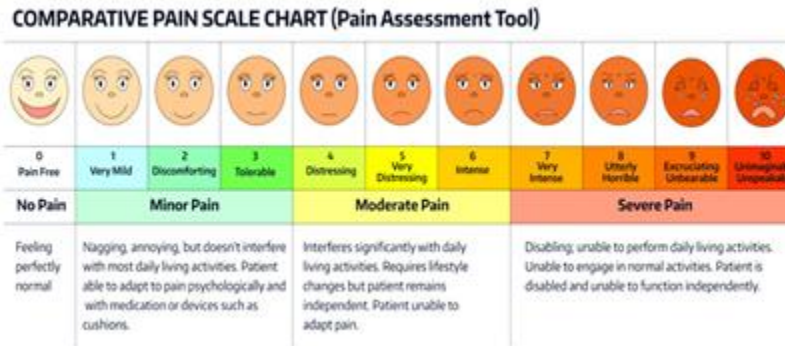
Among lumbar spondylosis patients, mean age was found to be 42.87 ± 13.90 with majority (28.7%) of them in the age group 31 - 40 years and about half of them (54%) were males.

Among the patients diagnosed with sciatica, the mean age was 45.48 ± 12.73 with higher proportion (29.2%) of the patients in the age group 41-50 years and 57.8% females.

The mean age of patients with cervicobanchial neuralgia was 43.58 ± 12.11 and most of them (31.2%) were in the age group 31 - 40 years. About 55.4% of the patients were females

Of the 48 patients diagnosed with myofascial syndrome, majority were males (62.5%) and in the ages group 41-50 years (31.2%). The mean age of these patients was 44 ± 12.45 .

Around 90 % 95% of the patients were shown to have improvement on VAS pain scale along with improvement in physical wellbeing.



Conclusion

It was concluded and recommended that injectable methylcobalamin can be safely used in the Neurospinal diseases with excellent clinical result especially in the pain scores.

References

1. <https://en.wikipedia.org/wiki/Methylcobalamin>
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4759374/>
3. <http://www.prohealth.com/library/showarticle.cfm?libid=481>
4. <https://stichtingb12tekort.nl/wetenschap/stichting-b12-tekort-artikelen/english/treatment-with-high-dose-vitamin-b12-been-shown-to-be-safe-for-more-than-50-years>
5. Bhavani Jayabalan, Lian Leng Low. Vitamin B supplementation for diabetic peripheral neuropathy. *Singapore Med J* 2016; 57(2): 55-59.
6. Health watch. Methylcobalamin: A Potential Breakthrough in Neurological Disease.1999.Source: [Internet]. Available from: <http://www.prohealth.com/library/showarticle.cfm?libid=481>
7. Treatment with high dose vitamin B12 been shown to be safe for more than 50 years. Source: [Internet].
8. Ming Zhang, Wenjuan Han, Sanjue Hu, and Hui Xu. Methylcobalamin: A Potential Vitamin of Pain Killer. *Hindawi Publishing Corporation Neural Plasticity* 2013; 1-6