

## Short Communication

# A Case Study of Acute Exacerbation of Thrombocytopenic Crisis in Liver Cirrhosis Patient with Ayurveda Medicines

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Liver has important role in haematopoiesis that causes derangement of cellular component in liver parenchymal disease. Thrombocytopenia is not a rare phenomenon in liver parenchymal disease [1]. In certain cases there may be severe thrombocytopenia that may be referred as thrombocytopenic crisis that manifest as bleeding symptom. Acute thrombocytopenia crisis with < 1500/cumm may have fatal outcome and requires prompt medicine. The clinical entity has been described in Ayurveda classics as Raktapitta (bleeding disorders), patient was treated as per Ayurveda guidelines with prompt positive outcome. The detail of the case was presented in this paper.

Patient was a known case of liver parenchymal disease managed on conventional management. Patient presented with haematuria, frank bleeding per rectum, ecchymosis, swollen joints – synovitis, loss appetite, mild rise of temperature (99°F). Patient's haematological profile was suggestive of thrombocytopenic crisis the haematological reports of 30<sup>th</sup> Dec, 2015 were haemoglobin – 9gm/dl, TLC – 8900/dl, N – 72, L – 24, E – 3, B – 0, M – 1, ESR – 15/hr, Total platelet count – 1500/dl, urine was full of RBC, crystals – ab, patients biochemical reports were RBS – 82mg/dl, total cholesterol – 236mg/dl, SGPT – 42, and S. Alk. Phos – 183. Patient was examined clinically that revealed ecchymosis and synovitis, CVS examined was normal with normal apex sound and all four valves, no added sounds or murmurs were audible on physical examination – auscultation. Respiratory system examination was not suggestive – dyspnoea gr I was observed with no added lung sounds breathing sounds were normal. Abdominal

examination revealed mild hepatomegaly gr I with no ascites, normal positioned umbilicus, no other mass or tenderness was observed. Patient was conscious, oriented, and able to respond to verbal commands, i.e. higher mental functions were not affected (during physical examination) and all refluxes were non-significant. Patient's relative complained of occasional giddiness or unconsciousness (not exceeding 1/2min)

Patient provisional diagnose was suggested as TriyakRaktapitta – acute thrombocytopenic crisis. Patient was well informed about probable outcome of the treatment and danger related to condition of patient. Patient was managed with ayurvedic medicines classically prescribed for bleeding disease in ancient ayurvedic texts. The goals set for managing the conditions were – checking bleeding (internal & external), arrest target organ damage (vital organ damage), arrest all possibilities of internal bleeding, improving thrombocytopenia – short term measures & long term measures.

This clinical entity has been described in ancient Ayurveda classics as TriyakRaktapitta. In the disease Raktapitta Pitta the body humor responsible for digestion & metabolism acquires certain qualities of Rakta (blood) that increases the volume of Rakta. This may be correlated with deranged mechanism of coagulation due to impairment in organs of Rakta i.e. disease of liver and spleen [2,3]. The disease has been described first by Acharya Charaka in Charaka Samhita. Pitta getting characteristics of Rakta may be interpreted as the coagulation defect in blood that may lead to oozing from different orifices, in acute exacerbation it may even come out from skin and hair follicles. The disease can be treated with medicines and purification process (Panchakarma). The general guidelines in treating these patient is to observe characteristic of Rakta (bleeding), general condition and associated complaints of patient, constitution of patient, etc. before crafting treatment to ensure fulfillment of above listed management goals.

Patient was managed with classical Ayurveda medicines mentioned by Acharya Charaka containing Vaidurya, Mukta, Mani and Gairik [4] in equal quantity (125mg each) with dry black grapes

Table 1: Pathological Parameters.

	BT	AT										
		AT 1	AT 2	AT 3	AT 4	AT 5	AT 6	AT 7	AT 8	AT 9	AT 10	AT 11
	30 <sup>th</sup> Dec, 2015	1 <sup>st</sup> Jan, 2016	2 <sup>nd</sup> Jan, 2016	5 <sup>th</sup> Jan, 2016	10 <sup>th</sup> Jan, 2016	15 <sup>th</sup> Jan, 2016	20 <sup>th</sup> Jan, 2016	1 <sup>st</sup> Feb, 2016	15 <sup>th</sup> Feb, 2016	2 <sup>nd</sup> Mar, 2016	30 <sup>th</sup> Mar, 2016	1 <sup>st</sup> May, 2016
Plat	1500	2800	5500	9000	15000	35000	42000	45000	75000	78000	85000	105000
Hb	9	9	9.2	9.8	10.3	10.9	11.5	11.5	11.5	11.8	12	12
TLC	8900	8900	9000	7500	8000	8200	8000	7500	8000	8000	7200	7500
RBS	82	ND	ND	ND	76	ND	ND	83	ND	78	ND	87
SGPT	42	ND	ND	ND	43	ND	ND	ND	ND	39	ND	37
AlkPhos	183	ND	ND	ND	153	ND	ND	ND	ND	135	ND	121

**Table 2:** Symptoms & Sign.

	BT	AT										
		AT 1	AT 2	AT 3	AT 4	AT 5	AT 6	AT 7	AT 8	AT 9	AT 10	AT 11
	30 <sup>th</sup> Dec, 2015	1 <sup>st</sup> Jan, 2016	2 <sup>nd</sup> Jan, 2016	5 <sup>th</sup> Jan, 2016	10 <sup>th</sup> Jan, 2016	15 <sup>th</sup> Jan, 2016	20 <sup>th</sup> Jan, 2016	1 <sup>st</sup> Feb, 2016	15 <sup>th</sup> Feb, 2016	2 <sup>nd</sup> Mar, 2016	30 <sup>th</sup> Mar, 2016	1 <sup>st</sup> May, 2016
Bleeding PR	+++	+++	++	+	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
Haematuria	++++	+++	++	+	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
Ecchymosis	+++	+++	+++	+++ <sup>†</sup>	++	++	+	Ab	Ab	Ab	Ab	Ab
Consciousness <sup>Ⓟ</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Appetite <sup>Ⓜ</sup>	++	+	+	= <sup>*</sup>	=	=	=	=	=	=	=	=
Sleep <sup>*</sup>	+++ <sup>‡</sup>	++	++	=	=	=	=	=	=	=	=	=
Bowel	+ <sup>-</sup>	=	=	=	=	=	=	=	=	=	=	=
Thought process <sup>‡</sup>	=	=	=	=	=	=	=	=	=	=	=	=

<sup>Ⓟ</sup>Patient was conscious and able to respond to verbal stimulus,

<sup>Ⓜ</sup>Loss of appetite was observed,

<sup>\*</sup>Sleep time, onset of sleep, night sleep and day sleep, sleep pattern and awakening was taken in consideration,

<sup>†</sup>No significance,

<sup>‡</sup>Disturbed sleep,

<sup>-</sup>Normal bowels,

<sup>\*</sup>Means normal appetite,

<sup>-</sup>No new spot was present.

water was administered every two hourly, till bleeding symptoms persists. Patient was also administered combination of Shatavari (A. racemose) 1gms, Yastimadhu (G. glabra) 1gms, Dhatri-loha (classical ayurvedic formulation) 250mg, MuktaPisti (trituated pearl) 125mg, Kamdudha (Gairik i.e. copper sulphate trituated with rose water) 125mg with honey five times a day for first five days followed by four times a day for a fortnight and later three times a day. Patient was also administered Liv 52 [5] (ayurvedic formulation manufactured by Himalaya Drug Company) 2 tsp thrice a day.

Patient responded well with Ayurveda treatment, patient recovered from the problem within a week period without platelet infusion or BT. The following table shows the development in patient (Table 1, 2).

## Summary and Conclusion

Outstanding and promising results were observed in single case thrombocytopenic crisis, Patient responded well to the treatment with marked improvement was observed within few days of treatment. The success has been important because patient improved with infusion of platelet, which has added benefit of reducing risk any kind of HIV or HPV infection or rejections that may occur even if proper care has been taken. The treatment is cost effective, prompt and holistic in

nature. This single case study based on clinical practice is important for planning research for ITP, hematologic complication in liver cirrhosis, and other bleeding disorders.

## References

1. Peck-Radosavljevic M. Thrombocytopenia in liver disease. *Can J Gastroenterol.* 2000; 14: 60D-66D.
2. "Samsargāllōhitapradūṣaṇāllōhitagandhavarṇānuvidhānāccapittamlōhitapit tamityācāṣatē||5||"ancient ayurvedic text Charaka Samhita Nidan. Section chapter 2. stanza no. 5 Ch. Ni. 2/5.
3. Tasyaiva mācara taḥpittam prakō pamāpa dyatē, lōhitam ca sva pramā ṇama tivartatē| tasmin pramā ṇativṛttē pittam prak up itam śarīra manusar padya dēvayak ṛtīlha prabha vāṇāmlōhita vahānām ca srōta sārnlō hitā bhiṣyanda gurū ṇimu khān yāsā dyapra tirundh yāta dēvalō hita mdūṣayati. 4. Ancient ayurvedic text Charaka Samhita Nidan. Section chapter 2. stanza no. 4 Ch. Ni. 2/4.
4. Vaidūrya muktā maṇi gairikāṇām mṛcchaṅkhaḥ ḥmāmā akōdakānām. Madhū dakasy ēkṣura sasya caiva pānāc chamaṅgac chatiraktapittam. 79. Ancient ayurvedic text Charaka Samhita Nidan. Section chapter 7. Stanza no. 9. Ch. Chi. 4/79.
5. Dennis M, Warlow C. Migraine aura without headache: transient ischaemic attack or not? *J Neurol Neurosurg Psychiatry.* 1992; 55: 437-440.