

Comparative assessment of *Jalaukavacharana* (Leech Application) and *Shringavacharana* (Horn Application) in *Vicharchika*

Research article

Manoj L. Sonaje¹, Dhiman K. S², Bhuyan C³, Gupta S. K⁴, Dudhamal T. S⁵

- 1. Lecturer, Dept. of Shalya Tantra, Lt.K.R. Ayurveda Medical College, Gadhinglaj, Kolhapur.
 - 2. Professor & Head Department of Shalakya Tantra, IPGT&RA, Jamnagar.
 - 3. Prof & Ex Head, Dept. of Shalya Tantra, IPGT&RA, Jamnagar.
 - 4. Asso. Professor & Head Department of Shalya Tantra, IPGT&RA, Jamnagar.
 - 5. Assistant Professor, Dept. of Shalya Tantra, IPGT&RA, Jamnagar.

Abstract

Skin disorders are effectively treated in Ayurveda by remedial and Para surgical methods. Vicharchika is a type of Kshudra Kushta; a chronic disease which analogous to Eczema in contemporary medical science. As per modern science, accessible treatment for eczema consists of reassurance, elimination of predisposing causes and palliative measures. Raktamokshana (Blood letting) is one of the precise modality of shodhana (Purification) in skin disorders as it involves vitiated Pitta & Rakta in its origin. In present study two Raktamokshana methods i.e. Jalaukavacharana (Leech application) and Shringavacharana (Horn Application) were applied with convenient approach and compared for their efficacy in management of Vicharchika. Total 62 patients; 30, 32 patients were treated with Raktamokshana which was done by classical & adopted innovated modified slant in group A (Jalaukavacharana) and В (Shringavacharana) respectively. Newly Shringavacharana Yantra has been utilized in respective group. Present study shows significant result of Raktamokshana in Vicharchika. Between 2 groups group A (Jalaukavacharana) shows considerable results.

Keywords: Vicharchika, Eczema, Jalaukavacharana, Shringavacharana

Introduction

In Ayurveda every skin disorder is included under heading of Kusta. Ayurveda also implements broad line of management of skin disorders like medicinal and Para surgical approach. *Vicharchika* is considered as Kshudra Kushta in Ayurvedic classics with elaboration of its management in various aspects.(1) The clinical presentation of

Vicharchika with symptoms like Kandu Srava (Discharge), (Itching), (Pustules), Raji (Scratches), Ruja (Pain), Vaivarnyata (Discoloration of skin) etc.(2) The Eczema is the nearest clinical entity of modern science which can correlate with *Vicharchika.*(3) Vicharchika pathology with vitiation of tridosha but according to law of predominance it shows Pitta & kapha as major vitiation.(2) The Rakta and Twak is considerably included in pathology as dushya in Vicharchika.(2) conservative management Vicharchika has their own limitations with respect to care & its cure. Acharya Sushruta clearly mentioned that if all conservative management fails then the disease should consider as blood vitiated

Dr. Manoj L. Sonaje

202, Saivihar A, Near Krishna Complex, Kathe Lane, Nashik-Pune Road, Dwarka, Nashik. Maharashtra.

E-mail – manojsonaje@gmail.com,

Mob: 09423932283

^{*}Correspondence address

diseases and Raktamokshana is to be considering as choice of treatment.(4)

The existing treatment in modern for Eczema consists reassurance, elimination of predisposing causes and palliative measures. It is also said that no specific medication can cure though few drugs eczema, symptomatic relief only.(5) Modern dermatology employs systemic and local administration of steroids for management of eczema.(6) Despite an initial response, maintenance therapies with small doses of systemic and topical glucocorticoids usually produce hazardous Similarly electrotherapy, ill-effects.(7) ultraviolet therapy, hydrotherapy, X-ray therapy, etc. are having their own limitations and these therapies are neither popular nor much responding.

Raktamokshana is an effective and safe remedy for the Vicharchika; as major reason for vicharchika is Rakta dushti. Samhita details practical Sushruta guidelines for blood letting which is considered half treatments chikitsa)(8) Various methods are employed for blood letting; like Shringa (Horn application). Jalouka (Leech). Alabu(Gourd), Prachhana (Scarification) and Siravyadha (Vein puncture) etc. These therapies are very well advocated in all Avurvedic texts. Blood letting is effective in all types and stages of Vicharchika. In fact many researches already have been done in this field, but it is need of an hour is to focus on the *Raktamokshana* therapy to replenish it so that a concrete statement can be made as to which modality helps in which stage of this condition. The surgeon should make use of his yukti according to his experience (Yathabhyasa) to select the disease as well as patient. Raktamokshana should be done according procedures (Yathanayaya). (8)

Jalaukavacharana is ancient and famous modality of Raktamokshana which can be used in delicate persons and having pittaghna property. (9) It can be also a choice of treatment where the doshas are deep seated in disease pathologies. (8)

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Shringavacharana is the type of Raktamokshana in which cow horn is utilized for the purpose of bloodletting with help of manual mouth aspiration.(9) The acharya Sushruta emphasized the guna of Shringa as Madhura (Sweet), Snigdha (Oily) and Ushna (Hot) which made it vataghana in nature. (9) it is indicated in diseases which are seated at level superficial.(8) or modalities having their own significance Hence this proposed study was undertaken to evaluate the efficacy and to standardize Jalaukavacharana and Shringavacharana Raktamokshana methods of Vicharchika.

Aims & Objective

To evaluate and compare the efficacy of Jalaukavacharana (Leech Application) and Shringavacharana (Horn Application) in the management of Vicharchika w. s. r. Eczema

Materials and Methods: Study Design

Present study was randomized, open clinical research at OPD/IPD levels with appropriate sample. The patients included in the clinical trial were divided into two groups viz.

Materials:

- 1) Patients Total 62 patients were divided into two groups, 30 and 32 patients in Group A & Group B respectively.
- 2) Raktamokshana Devices:
 - a. Jalaukavacharana Material Fresh Jalauka and Turmeric Powder
 - b. Modified Shringa instrument-* optic fibre tube attached with vacuum pump and pressure regulator. (As Shown in Image 1 to 4)



- It's a innovative work conducted by scholar first time as a Ph.D. work, The Article has been published in International Journal of Ayurvedic Medicine and Pharmacy: Volume 2, Issue 5, September - October 2011 (IJRAP-ISSN 2229-3566)
- **Group A** Treatment of *Vicharchika* (Eczema) with *Jalaukavacharana* (Leech Application)
- **Group B** Treatment of *Vicharchika* (Eczema) with *Shringavacharana* (Horn application)

Source of Patients

Cases of *Vicharchika* (Eczema) were selected randomly irrespective of their Age, Sex, Religion, Occupation, Caste, Creed etc. and were randomly assigned in all groups, from OPD & IPD of Department of Shalyatantra I.P.G.T. & R.A. Hospital, Gujarat Ayurved University, Jamnagar,

Inclusion Criteria

- 1) Patients presenting with classical signs and symptoms of Vicharchika (Eczema) like Kandu, Vaivarnyata, Srava, Shotha, Vedana, Pidaka etc.
- 2) Patients between the age group 10-70 years

Exclusion Criteria

- Use of Systemic antibiotics or antimycotic drugs in the previous 4 weeks.
- 2) Known cases AIDS (HIV Positive), Tuberculosis, Anemia and Cardiac Diseases, Leprosy, Hepatitis A, B, C.

Laboratory Investigations

- Routine hematological investigations
 RBS, TLC, DLC, Hb%, ESR & PCV, L.F.T., R.F.T, Lipid Profile
- 2) Urine examination Macroscopic and Microscopic

Methodology Group A

ModalityJalaukavacharanaDose:One sitting per weekPeriod of trial30 days (4 week)Diet:To follow

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appropriate diet

Procedure:

Patients were given *snehana karma* before procedure the part was cleaned and fomented with Luke worm water. Then the fresh leeches after activation in the turmeric Powder were applied on the affected part. After application the leech were made to vomit with turmeric powder and the wound was dressed up by pressure bandage. Average 28 ml blood was removed. Duration of Leech application was Average 56 min.

Group B

Modality
Shringavacharana
Frequency
One sitting per week
30 days (4 week)
To follow
appropriate diet

Procedure Patients were given bahya abhyanga (Local oil Massage) and nadi swedan *karma*(Sudation) before procedure, small 25 incisions were given at or near the lesion, approximate 1mm deapth by 11 no surgical blade were maintained. The innovated Shringa (Optic Tube) was applied from its base over the incised point. The Shringa (Optic Tube) was fixed by pressing it over the skin. The suction was made from the apex of Shringa with vacuum pump with constant 250 mm of hg pressure. The created vacuum in the Shringa (Optic Tube) removed the vitiated blood up to average 27ml. Average 27 min was required for procedure. After completion of the procedure the wound was dressed up with antiseptic dressing after haemostasis.

Advice (8) Do's

1) Laghu ahar (Light Digestive food)



- 2) Light Exercise
- 3) Yavagupan (Use of digestive soups)

Don't's

- 1) Anger
- 2) Hard work
- 3) Sexual Intercourse
- 4) Sleeping by day
- 5) Excessive talking's
- 6) Physical Exercise
- 7) Spicy & Salty food

Assessment Criteria:

Subjective Parameters

- 1 Kandu (Itching)
- 2 Vedana (Pain)
- 3 Vaivarnyata (Discoloration of Skin)
- 4 Srava (Secretions)
- 6 Pidaka (Rashes)
- 7 Rukshata (Dryness)

Objective Parameters

- 1 Size of Patches (Calculated the area of Patches in measurement Length x Breadth = cm²)
- **2** *Shotha* (Swelling) (Calculated by direct measurement in cm)

Kandu (Itching)

- No itching 0
- Relive spontaneously + 1
- Relive by itching + 2
- Disturbs routine + 3
- Require medication + 4

Vaivarnya (Discolouration)

- Normal colour 0
- Light Brown +1
- Break Brown +2
- Dark Brown +3
- Black Brown +4

Srava (Discharge)

- No discharge 0
- Occasionally discharge +1
- Discharge on itching +2
- Relive spontaneously +3
- Not at all relive +4

Vedana (Pain)

• No pain 0

- Occasionally pain +1
- Mild pain on touch +2
- Mild to moderate pain +3
- Severe pain +4

Pidika (Rashes)

- No Pidaka 0
- Starting of Pidaka +1
- Moderately developed Pidaka +2
- Spreaded over extremities +3
- Severely spreaded all over body +4

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Rukshata (Dryness)

- No scratch imprint after scratching
 0
- Mild scratch imprint after scratching +1
- Scaling on every scratch +2
- Scratching causes eruption +3
- Spontaneous eruption & Stretching of skin +4

Follow up

• The follow up of every patient was maintained up to 30 days (Weekly) after completion of treatment.

Statistical Analysis:

The obtained data were analyzed statistically. Scored values of assessment were analyzed through wilkoxon sign rank test within group and unpaired t test was used for intergroup comparison. For intra group comparison of investigational values paired't' test while intergroup comparison unpaired t test was used. The values were expressed as mean ±SEM. 't' test level of P<0.05 and P<0.01 were considered as statistical significant and highly significant respectively.

Observations and Results:

In present Clinical trial total 63 patients were registered. 31 and 32 patients were in group A, and Group B respectively. Among 63 patients, 71.428% were male while remaining i.e. 28.572% patients were female. The maximum number i.e. 44.44% of patients were in age group of 41 –60 years. The data of *Deha Prakriti* illustrated that maximum figures of patients i.e. 61.90% had *Vatakapha*



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Prakriti, while 14.28% were of Vata-Pitta Prakriti and 23.82% patients had Pitta-Prakriti. As far occupation Kapha concerned maximum number of patients general official services was in i.e.30.158%, 12.698% were in business, 25.396% were housewives. 92.063% patients from urban resident & 7.937% were from rural areas. Religion showed 92.063% Hindu and 4.76 % Muslims were observed. On the basis of socioeconomic approach 84.12% were middle class, 14.28% were poor and 1.58 % were rich. As per educational status all patients i.e. 100% were (Table literate. no Vicharchika exhibited 92.063% as Shushka variety and 7.937% suffered from Sravi. Presence of the cardinal symptom of Vicharchika like Vaivarnyata (100%), Kandu (100%), Pidaka 95.238%, Raji 100%, Rukshata (100%) and Ruja 1.587% proved their prevalence (Table no 2).

magnificence The of clinical trial showed highly significant consequences in both groups. In Group A cardinal symptoms Kandu, Vaivarnyata, Raji, Rukshata, Size of patches, Pidaka relived significantly showed p value <0.001, other like Vedana, Shotha, Srava were relived but statistically insignificant. (Table no 3) In group B the pacification of cardinal symptoms were also notify highly significant rate as group A (Table no 4). The utmost hematological and biochemical lab investigations showed insignificant changes

Discussion:

General Observations

Patient with age group of 41 –60 were up to 44.44% the reason may by chance. In study maximum 71.428% patients were of male gender. The male patients are frequently faced the causative factors of skin disorders like cement, mud, coal tar etc due their profession, Tobacco chewing, smoking, alcohol, longstanding are prevalent causes for male involvement in this disease. Maximum numbers of

patients had Vata-Kapha Prakriti 61.90%, but the numbers of the patients in other groups are very nearer to it. Married patients were 76.190% but the rationality is still unpredictable. Occupational point of view general service men were showed their predominance up to 30.158% just by chance or the prolonged sedentary posture may causative factor. Socioeconomic approach showed maximum number was in middle class group up to 84.12%, 92.063 exhibited by dwelling status of patients with in urban class just by chance.

Disease Vicharchika

Amid all Kshudra Kustha Vicharchika is common. The occurrence may be due to climatic condition, because these types of diseases occur chiefly in humid area and the place where this study was carried out is humid region. Vicharchika is a condition where patient presents with the severe painful itching skin eruptions and dryness of the skin which can be rightly correlated to Eczema.

Result

In leech application the hirudin (Content of Leech saliva) showed rapid action in reliving symptoms 60% patients got reliving from 2nd sitting.

Raktamokshana procedures, Shringavacharana was modified; instead of mouth suction vacuum pump was utilized with constant pressure 250-300 mm of hg. This pressure was estimated threw a serve work of 60 healthy volunteers which showed the average human aspirating capacity is 220 mm of The dimensionless suction Shringavacharana procedure its standardization along with suitable and scientific background. Utilization vacuum pump avoids aspiration of blood in performer's mouth.

As result concerned in (Group A) Jalaukavacharana & (Group B) Shringavacharana shows incredible outcome in pacification of symptoms because it is a prime modality of Raktamokshana which can act in any kind



of vitiation of blood or also beneficial if the vitiation of doshas present systemically.

In group B the pacification of the symptoms are mostly similar to Group A with p value but percentage change shows better results in group A as showed (table no 5).

Conclusion

The outcome of present clinical trial show highly significant consequences in both groups. In Group A cardinal symptoms Kandu, Vaivarnyata, Raji, Rukshata, Size of patches, Pidaka relived significantly showed p value <0.001, other were relived but remained statistical insignificant. In group B the pacification of cardinal symptoms were also notify highly significant rate as group A with p value <0.001. The most of hematological and biochemical lab investigations didn't shows remarkable changes Raktamokshana methods Jalaukavacharana and Shringavacharana are both effective in the management of Vicharchika.

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Table 1. General observations:

n=63

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Sr. No.	Observations	Results in % (Maximum)				
1	Age(41 –60years)	44.44				
2	Sex (Male)	71.428				
3	Marital status (Married)	76.190				
4	Occupation (Service)	30.158				
5	Dwelling Status (Urban)	92.063				
6	Religion (Hindu)	92.063				
7	Socio economic status (Middle class)	84.12				
8	Educational Status Literate	100				
9	Prakriti (Vata-kapha)	61.90				
10	Type of Vicharchika	92.063				

Table no. 2 Subjective and Objective Parameters

Subjective & Objective Parameters	Present	Present %	Absent	Absent%
Viavarnyata	63	100	00	100
Kandu	63	100	00	100
Srava	07	11.11	56	88.888
Ruja	01	1.587	62	98.4127
Pidaka	60	95.238	03	4.761
Shotha	00	00	63	100
Rukshata	63	100	00	00
Raji	63	100	00	00

Table no 3 Group A Jalaukavacharana Wilcoxon Signed Rank Test

Subjective							
&Objective	N	Day	Median	25%	75%	\mathbf{W}	P
Parameters							
	31	BT 1 st Day	3.000	3.000	4.000		<0.001*
Kandu	31	AT 30 th Day	1.000	0.250	1.750	-496.000	
	31	BT 1 st Day	0.000	0.000	0.000		
Vedana	31	AT 30 th Day	0.000	0.000	0.000	-1.000	1.000
	31	BT 1 st Day	78.000	56.000	127.000		<0.001*
Size of Patches	31	AT 30 th Day	60.000	40.000	94.500	-496.000	
	31	BT 1 st Day	3.000	3.000	4.000		<0.001*
Vaivarnyta	31	AT 30 th Day	1.000	1.000	2.000	-406.000	
	31	BT 1 st Day	3.000	3.000	4.000		
Pidaka	31	AT 30 th Day	1.000	1.000 3.000		-378.000	<0.001*
	31	BT 1 st Day	0.000	0.000	0.000		
Srava	31	AT 30 th Day	0.000	0.000	0.000	-21.000	0.031
C1 41	31	BT 1 st Day	0.000	0.000	0.000	0.000	1.000
Shotha	31	AT 30^{th}	0.000	0.000	0.000	0.000	



		Day						
	31	BT 1 st Day	3.000	3.000	4.000			
Rukshata	31	AT 30 th Day	1.000	0.000	1.750	-496.000	<0.001*	
	31	BT 1 st Day	3.000	3.000	5.000			
Raji	31	AT 30 th Day	1.000	1.000	3.000	-351.000	<0.001*	
*shows highly significant result								

Table no 4 Grou		Shringavacha						
Subjective	N	Day	Median	25%	75%	\mathbf{W}	T+	P
&Objective								
Parameters								
Kandu	32	BT 1 st Day	3.000	3.000	3.000	-	0.000	<0.001*
	32	AT 30^{th}	1.000	0.000	1.000	528.000		
		Day						
Vedana	32	BT 1 st Day	0.000	0.000	0.000	-3.000	0.000	0.500
	32	AT 30^{th}	0.000	0.000	0.000			
		Day						
Size of Patches	32	BT 1 st Day	71.000	54.000	240.000	-	0.000	<0.001*
	32	AT 30^{th}	62.000	46.000	220.000	528.000		
		Day						
Vaivarnyta	32	BT 1 st Day	3.000	3.000	4.000	-	0.000	<0.001*
	32	AT 30^{th}	1.000	1.000	1.000	496.000		
		Day						
Pidaka	32	BT 1 st Day	3.000	3.000	3.000	-	0.000	<0.001*
	32	AT 30^{th}	1.000	1.000	2.000	435.000		
		Day						
Srava	32	BT 1 st Day	0.000	0.000	0.000	-1.000	0.000	1.000
	32	$AT 30^{th}$	0.000	0.000	0.000			
		Day						
Shotha	32	BT 1 st Day	0.000	0.000	0.000	0.000	0.000	1.000
	32	$AT 30^{th}$	0.000	0.000	0.000			
		Day						
Rukshata	32	BT 1 st Day	3.000	3.000	3.500	-	0.000	<0.001*
	32	AT 30^{th}	1.000	0.000	1.000	496.000		
		Day						
Raji	32	BT 1 st Day	3.000	3.000	3.000	_	0.000	<0.001*
<i>y</i> ·	32	AT 30^{th}	1.000	1.000	2.500	435.000		
		Day						
*shows highly si	gnifi	-		1		I	1	
	ت ت							



Table no.5 Unpaired T test in Group A and Group B

Subjective &Objective Parameters	N	Day	Mean	±SEM	Std Dev	% Change	Difference	Т	P
Kandu	31	Group A	68.817	±4.162	23.171	69	-9.308	-1.750	0.085
	32	Group B	78.125	±3.342	18.902	78.125%	-9.308		
Vedana	31	Group A	3.226	±3.226	17.961	0.3	2 024	0.556	0.590
	32	Group B	6.250	±4.348	24.593	6.250	-3.024	-0.556	0.580
Size of Patches	31	Group A	22.396	±2.158	12.014	22.4	8.074	3.088	0.002
	32	Group B	64.063	±3.558	20.129	64.063	8.074		0.003
Vaivarnyta	31	Group A	55.645	±4.755	26.474	56	-8.417	-1.423	0.160
	32	Group B	64.063	±3.558	20.129	64.063	-0.41/		
Pidaka	31	Group A	51.651	±4.952	27.570	52	51.651	-2.754	0.697
	32	Group B	54.405	±4.997	28.266	54.405	31.031		
Srava	31	Group A	12.903	±5.225	29.094	13	68.817	78.125	0.085
	32	Group B	2.083	±2.083	11.785	2.083	08.817	76.123	
Shotha	31	Group A	0.000	±0.000	0.000	00	3.939	1.209	0.231
	32	Group B	0.000	±0.000	0.000	0.000	3.939	1.209	
Rukshata	31	Group A	70.430	±4.683	26.073	70	2 520	0.541	0.591
	32	Group B	73.958	±4.548	25.729	73.958	-3.528	-0.541	0.391
Raji	31	Group A	50.707	±5.566	30.991	50.7	6 992	0.022	0.359
	32	Group B	57.589	±4.976	28.147	57.589	-6.883	-0.923	0.339



Image no.1: Showing Shringayantra and its Specifications



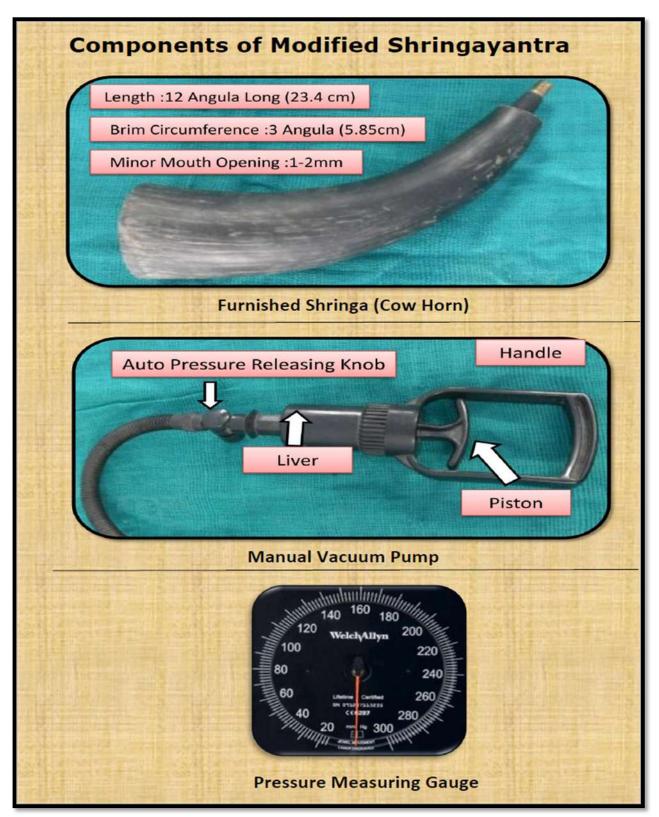


Image 2: Component of modified Shringayantra



Image 3: Component of modified Shringayantra

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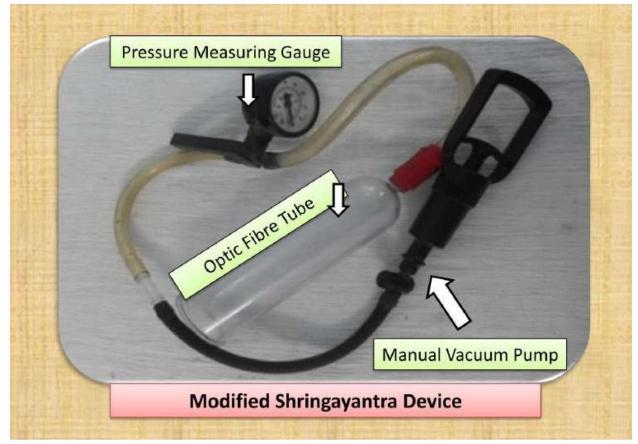


Image 4: Component of modified Shringayantra with optic Fiber Tube
